

VEGETATION OF MOIST ROCK CREVICES AND MOIST (SLOPE) DEBRIS IN THE LIŠČAK GORGE (BAČA VALLEY, JULIAN ALPS)

VEGETACIJA VLAŽNIH SKALNIH RAZPOK IN VLAŽNEGA POBOČNEGA GRUŠČA V GRAPI LIŠČAKA (BAŠKA DOLINA, JULIJSKE ALPE)

In memory of Prof. Stanko Buser (1932-2006) / V spomin prof. Stanku Buserju (1932-2006)

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ABSTRACT

Vegetation of moist rock crevices and moist (slope) debris in the Liščak gorge (Bača Valley, Julian Alps)

We studied the phytosociology of communities of moist rock crevices and slope debris in the Liščak gorge in the southern Julian Alps. Based on the relevés from this and several other gorges in the Julian Alps and their foothills we described new associations *Viola biflorae-Astrantietum carniolicae*, *Palustriello commutati-Astrantietum carniolicae*, *Veronico urticifoliae-Violetum biflorae*, *Palustriello commutati-Veronicetum urticifoliae*, *Veronico urticifolia-Saxifragetum cuneifolii*, *Calamagrostio variae-Asteretum bellidiastri* and *Lamio orvalae-Lunarietum redivivae*, and a new alliance *Astrantio carniolicae-Paederotion luteae*.

Key words: vegetation, *Asplenietea trichomanis*, *Arunco-Petasition albi*, *Lamio orvalae-Sambucetum nigrae*, Natura 2000, Slovenia

IZVLEČEK

Vegetacija vlažnih skalnih razpok in vlažnega pobočnega gruščja v grapi Liščak (Baška dolina, Julijske Alpe)

Fitocenološko smo proučili združbe vlažnih skalnih razpok in pobočnega gruščja v grapi Liščak v južnih Julijskih Alpah. Na podlagi popisov iz te grape in iz nekaterih drugih grap v Julijskih Alpah s prigorjem smo opisali nove asociacije *Viola biflorae-Astrantietum carniolicae*, *Palustriello commutati-Astrantietum carniolicae*, *Veronico urticifoliae-Violetum biflorae*, *Palustriello commutati-Veronicetum urticifoliae*, *Veronico urticifolia-Saxifragetum cuneifolii*, *Calamagrostio variae-Asteretum bellidiastri* in *Lamio orvalae-Lunarietum redivivae* ter novo zvezo *Astrantio carniolicae-Paederotion luteae*.

Ključne besede: vegetacija, *Asplenietea trichomanis*, *Arunco-Petasition albi*, *Lamio orvalae-Sambucetum nigrae*, Natura 2000, Slovenija

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1 INTRODUCTION

The Liščak is an about 3-km-long creek in the Kneška Grapa gorge and the Bača Valley in the southern Julian Alps. It starts at the elevation of around 1000 m under Mt. Ploha (1270 m) in the Tolmin–Bohinj range and flows into the Kneža river at 331 m a.s.l. At the straight line distance of around 2500 m it overcomes an almost 700 m difference in height. Numerous tributaries flow into the stream from both banks at an even steeper gradient than that of the main gorge, which is very narrow, with only a few small expansions where gravel and debris accumulate. The geological bedrock is extremely diverse, consisting of dolomite, limestone, chert, marlstone and claystone (BUSER 1986, 1987). As it faces southeast, the climate is relatively warm and humid, with an annual precipitation average of above 2000 mm (ZUPANČIČ 1998) and the mean annual temperature of around 7–8 °C (CEGNAR 1998).

Around 90% of the land cover in the Liščak basin (3.42 km²) is forest. The largest forest stand areas are classified into the following associations: *Seslerio autumnalis-Fagetum*, *Lamio orvalae-Fagetum*, *Saxifraga cu-*

neifolii-Fagetum, *Fraxino orni-Ostryetum* and *Veratro nigri-Fraxinetum excelsioris*.

Not a single house in the entire Liščak basin is inhabited anymore; there are still remains of old mills, but no artificial barriers or other direct human impact. Because of numerous geological and geomorphological specifics the stream and its gorge are protected as a valuable natural feature of regional or local importance (ROJŠEK 1986, 1991, <https://www.naravovarstveni-atlas.si/web/DefaultNvaPublic.aspx>).

Our first investigations into the vegetation of the Liščak basin date back to 1986 – 1988. After a longer period we revisited the gorge in 2015 and subsequently, mainly in 2018, 2019, 2020 and 2021, we made more than 200 phytosociological and floristic relevés, some of them also under the guidance and assistance of Peter Razpet. An overall description of flora and forest vegetation will be the subject of another paper. Here, we focus exclusively on the vegetation of moist rock crevices and tall herbs on moist slope debris (Figure 1).

2 METHODS

Our relevés were made using the Central-European phytosociological approach (BRAUN-BLANQUET 1964) and entered into the FloVegSi database (T. SELIŠKAR, VREŠ & A. SELIŠKAR 2003). We collected mosses and liverworts, which Andrej Martinčič, the co-author, determined in the laboratory. The relevés in Tables 1–13 were processed using hierarchical classification, unweighted average linkage method – UPGMA and Wishart's similarity ratio. We transformed the combined cover-abundance values into ordinal scale (1–9) according to van der MAAREL (1979). Numerical comparisons were performed with the SYN-TAX 2000 program package (PODANI 2001). Our aim was to classify the relevés from Liščak and its immediate vicinity (Veleke Luti) into a syntaxonomic system with previously described communities. As this was not always possible, some of our tables include relevés from other gorges in western and northwestern Slovenia, where we recently studied chasmophytic vegetation (DAKSKOBLER et al. 2021, DAKSKOBLER & MARTINČIČ 2020, 2021a). This served as the basis for our description of several new associations. Most of the communities of moist rock crevices in the submontane and montane belt in the Julian Alps and their foothills are dominated by vascular plants *Pinguicula alpina*, *Astrantia carniolica*,

Viola biflora, *Aster bellidiastrum*, *Veronica urticifolia*, *Valeriana tripteris*, *V. saxatilis*, *Saxifraga cuneifolia*, *Saxifraga aizoides*, *Asplenium viride*, *A. trichomanes*, and mosses and liverworts *Orthothecium rufescens*, *Palustriella commutata*, *Hymenostylium recurvirostrum* and *Conocephalum conicum*. Despite considerable floristic similarity they cannot be classified into a single association. In our descriptions of new communities at the rank of association we therefore took into account the constancy and medium cover of the dominant species in our relevés, because this is the key trait that allows us to identify these communities also in the field. We apply the same criteria for certain meadow, shrub and forest communities, where the dominant species of the highest stand layer determines into which association a community is classified.

In the classification of species into phytosociological groups (groups of diagnostic species) we mainly refer to the Flora alpina (AESCHIMANN et al. 2004a,b), but rely also on our own experience. The nomenclatural sources for the names of vascular plants were the Mala flora Slovenije (MARTINČIČ et al. 2007) and the FloVegSi database. HODGETTS et al. (2020) was the nomenclatural source for the names of mosses and liverworts. ŠILC & ČARNI (2012), MUCINA et al. (2016) and

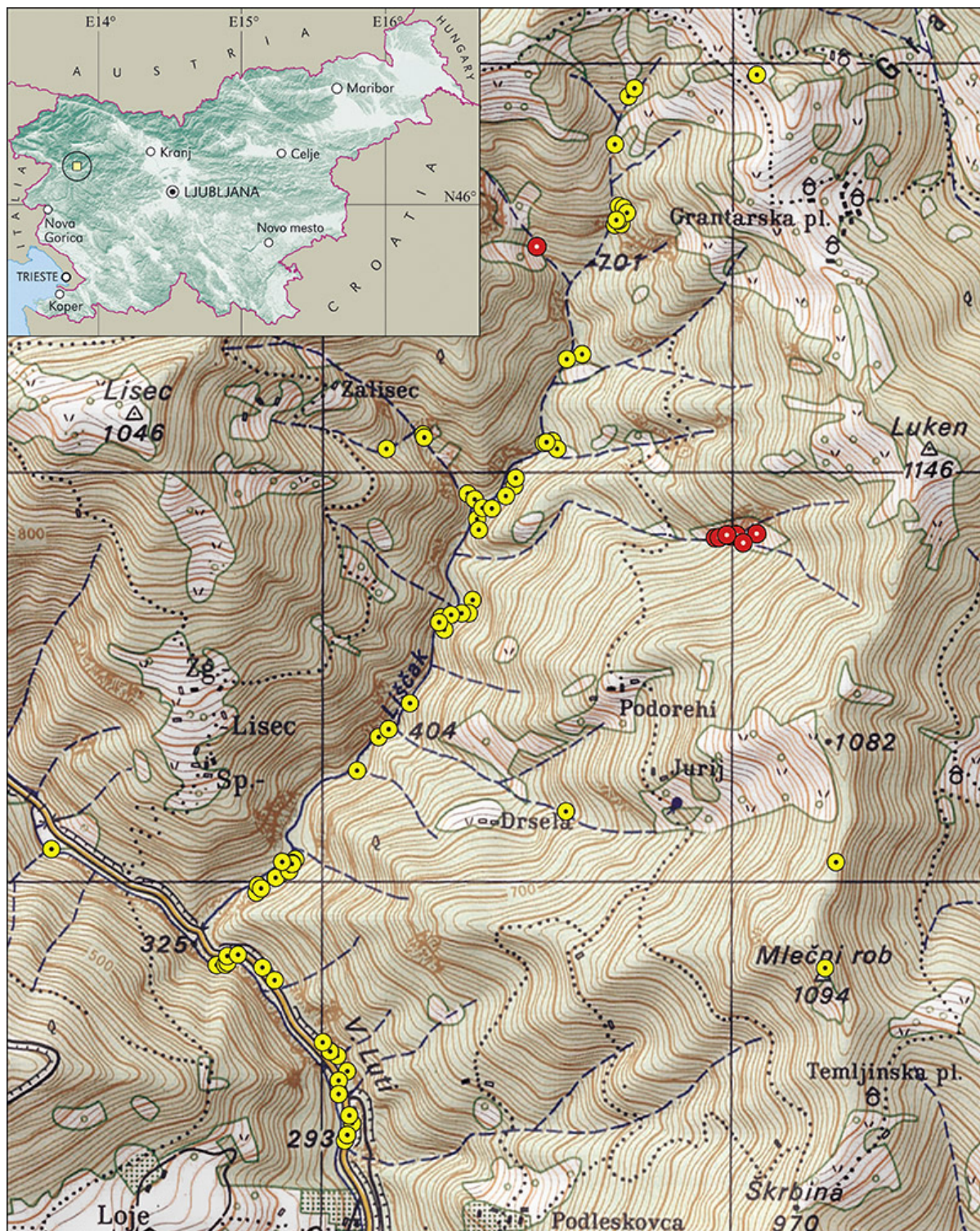


Figure 1: Approximate localities of relevés of moist rock crevices and slope debris in the basin of Liščak and its immediate surroundings (the stands of the subassociation *Campanulo cespitosae-Saxifragetum aizoidis achnatheretosum calamagrostis* are coloured in red).

Slika 1: Približna nahajališča fitocenoloških popisov združb vlažnih skalnih razpok in pobočnega grušča v povodju Liščaka in njegovi neposredni soseščini (z rdečo so pobarvani sestoji subasociacije *Campanulo cespitosae-Saxifragetum aizoidis achnatheretosum calamagrostis*).

DAKSKOBLER & MARTINČIČ (2020) served as nomenclatural sources for the names of the syntaxa. Geographic coordinates of relevés are determined accord-

ing to the Slovenian geographic coordinate system D 48 (zone 5) based on Gauss-Krüger projection and the Bessel ellipsoid.

3 RESULTS AND DISCUSSION

3.1 Moist rock crevice communities with dominant *Pinguicula alpina* and (or) *Astrantia carniolica*

Based on their floristic similarity the phytosociological relevés of moist rock crevices in Liščak grouped into several clusters (Figure 2) in which we identified several communities.

Table 1 comprises 13 relevés with dominant vascular plant *Pinguicula alpina* and mosses *Palustriella commutata* and *Hymenostylium recurvirostrum* that can be classified into the association *Astrantio carniolicae-Pinguiculetum alpinae*. Its diagnostic species are *Pinguicula alpina*, *Astrantia carniolica*, *Hymenostylium recurvirostrum*, *Palustriella commutata* and *Petasites paradoxus*. We recently published a more detailed description of this association (DAKSKOBLER &

MARTINČIČ 2020). Stands from the Liščak and its vicinity (downstream from the confluence of the Liščak and Kneža / Knešca – Velike Luti) are very similar to the stands from other areas in the Soča Valley, but possibly occur at slightly higher elevations, from 300 m to 620 m a.s.l. They are classified into the new variant with *Calamagrostis varia*. The geological bedrock is dolomite with chert and limestone with chert and (or) marlstone, and the aspect is predominantly sunny.

In the relevé cluster on the left side of the dendrogram in Figure 2 the dominant vascular plant was *Astrantia carniolica* and the dominant mosses were *Palustriella commutata* and *Hymenostylium recurvirostre*. *Pinguicula alpina* occurs in only a few relevés and has low medium cover, so these stands (Table 3) do not belong to the previously described association. Slightly

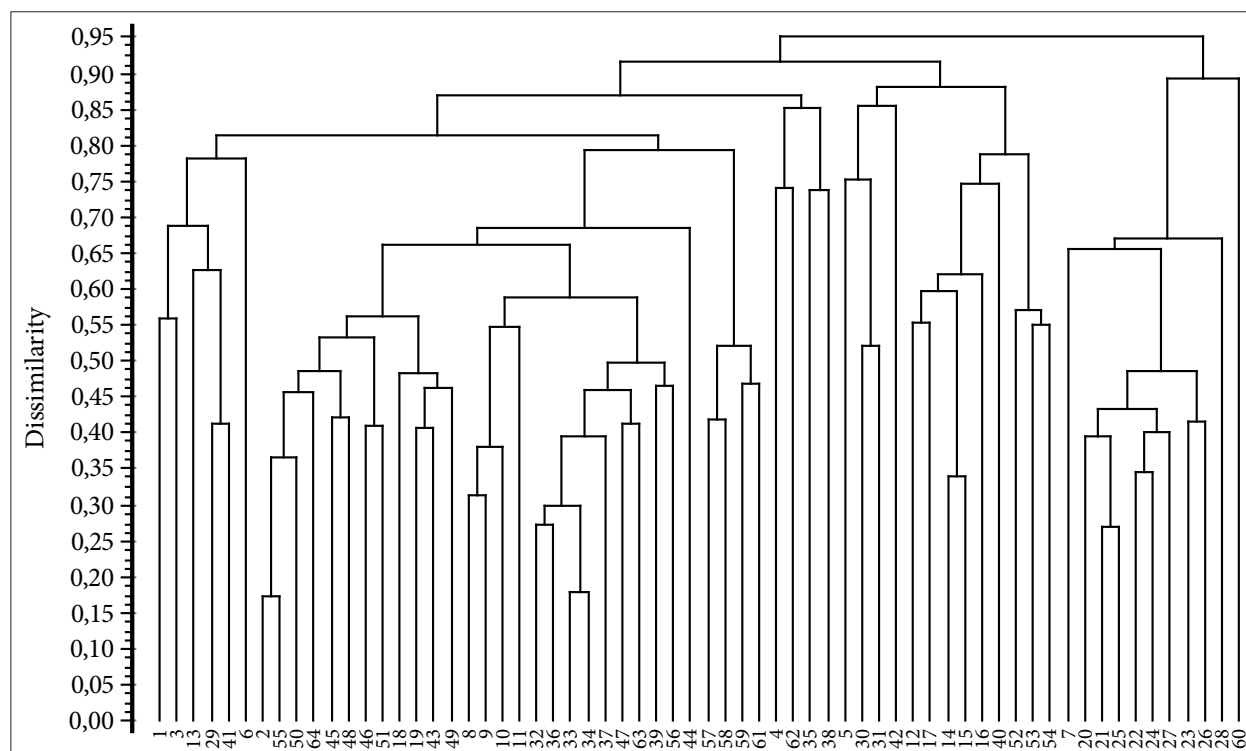


Figure 2: Dendrogram of relevés of moist rock crevices in the Liščak gorge and its immediate vicinity (UPGMA, 1-similarity ratio).

Slika 2: Dendrogram popisov vlažnih skalnih razpok v grapi Liščak in njeni okolici (UPGMA, 1-similarity ratio).

similar communities of moist rock crevices in the pre-Alpine and Dinaric phytogeographical region were classified into the association *Astrantio carniolicae-Primuletum carniolicae*. Almost as a rule, the dominant species was *Primula carniolica*, which has no known localities in the southern Julian Alps (DAKSKOBLER & MARTINČIČ 2020).

To facilitate classification of these relevés into the syntaxonomical system we made another table with the relevés with dominant vascular plant *Astrantia carniolica* from other regions in the Julian Alps. In part, we discussed these communities in recently published articles (DAKSKOBLER et al. 2021, DAKSKOBLER & MARTINČIČ 2021a) and concluded that they cannot be classified into the association *Astrantio-Pinguiculetum* nor into the association *Astrantio-Primuletum carniolicae*.

Table 2 comprises 18 relevés with species composition that is significantly different from the species composition of the Liščak relevés (Table 3), because their localities have a much larger altitudinal range. *Viola biflora* is very common in these relevés, but as it is not dominant in most of the relevés and therefore does not meet this criterion to be able to serve as the name-giving species of the association (*Violetum bi-*

florae), but it can be used in name of it, as *Viola biflorae-Astrantietum carniolicae*. It comprises the relevés of moist rock crevices with dominant *Astrantia carniolica* that cannot be classified into associations *Astrantio-Pinguiculetum alpinae* or *Astrantio-Primuletum carniolicae*. Its diagnostic species are *Astrantia carniolica*, *Viola biflora*, *Paederota lutea*, *Carex brachystachys*, *Adenostyles glabra*, and *Heliosperma pusillum*. The nomenclatural type of the new association, *holotypus*, is relevé 3 in Table 2. We distinguish four variants: var. *Palustriella commutata*, var. *Rhodothamnus chamaecistus*, var. *typica* and var. *Viola biflora*. The latter comprises the last three relevés in Table 2, which show similarity with stands of the association *Veronico urticifoliae-Violetum biflorae*, which will be presented in more detail below. The elevation of relevés of this association spans 540 m to 1350 m (submontane-altimontane belt), the geological bedrock is dolomite or limestone, and the aspect of their localities (Figure 3) is almost always shady.

Compared to the stands in Table 2 stands in Table 3 occur at lower elevations (300–785 m), and are characterised by the absence of certain subalpine-alpine species, including montane-(sub) alpine species *Viola biflora* and *Heliosperma pusillum*. According to domi-

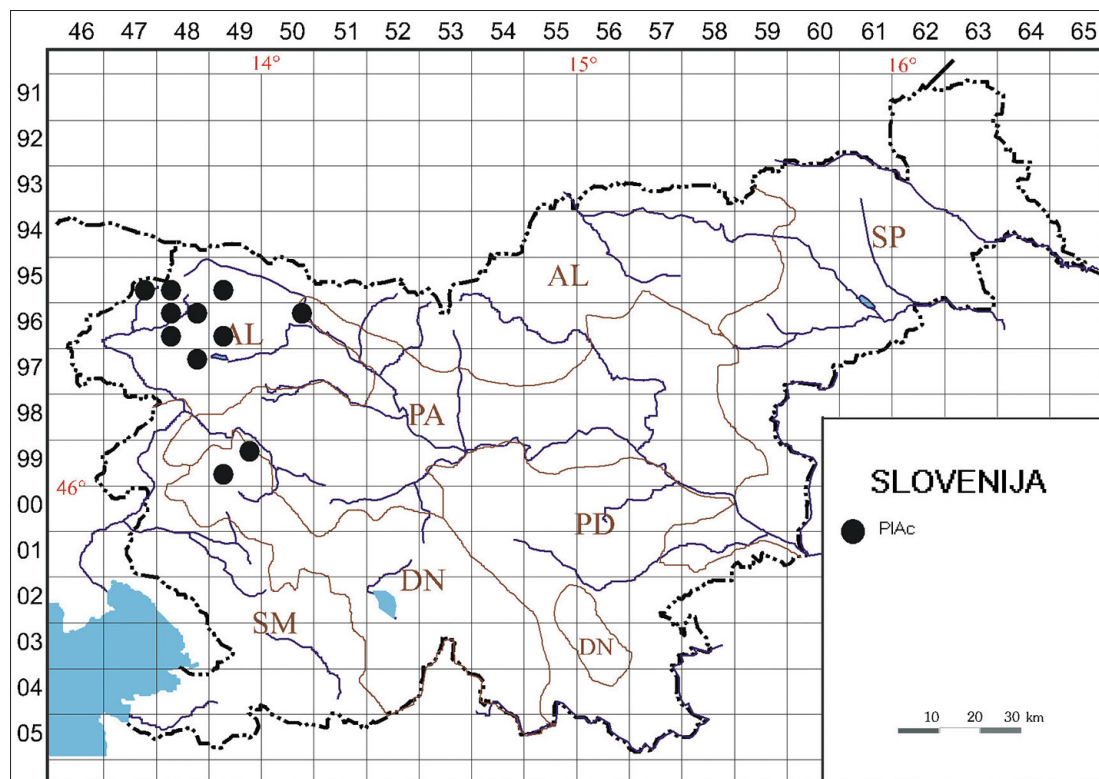


Figure 3: Localities of stands of the association *Viola biflorae-Astrantietum carniolicae*
 Slika 3: Nahajališča sestojev subasociacije *Viola biflorae-Astrantietum carniolicae*

nant species and results of hierarchical classification (Table 11, Figure 10), we classify this stands into the new association *Palustriello commutati-Astrantietum carniolicae* ass. nov. hoc loco. Its nomenclatural type, *holotypus*, is relevé 14 in Table 3. The species composition of relevés 1–4 is different, so they are for now classified into the variant *Palustriello-Astrantietum carniolicae* var. *Carex mucronata*. Its differential species are *Carex mucronata*, *Aster bellidiastrum*, *Hydrogonium croceum* (*Barbula crocea*) and *Valeriana saxatilis*. The locality of these relevés is the right bank of the Kneža downstream of the confluence with the Liščak, at the beginning of the ravine of Velike Luti; the geological bedrock is dolomite with chert and the aspect is distinctly shady; the average elevation is 320 m. In the stands of this variant we collected and determined also two relatively rare moss species. *Trichostomum crispulum* is a meridional-temperate species of which we have relatively limited recent data for Slovenia (MARTINČIČ 2018: 58). *Microlejeunea ulicina* is distributed mainly in North America, North Africa, the Mediterranean and western Europe to Norway. It occurs mainly on tree bark and decaying wood on very airy, moist areas. In Slovenia it is red-listed as vulnerable (MARTINČIČ 2016: 109).

Other relevés in Table 3 belong to the typical variant *Palustriello-Astrantietum carniolicae* var. *typica* and their stands are characterised by abundant occurrence of *Palustriella commutata* and *Hymenostylium recurvirostre*. The elevation of the relevés is 300 m to 785 m, the aspect is shady and sunny, the geological bedrock is predominantly limestone with admixture of marlstone and chert.

3.2 Moist rock crevice communities with dominant *Veronica urticifolia*, *Saxifraga cuneifolia* or *S. aizoides*

Table 4 comprises communities of moist rocks in the Liščak gorge in which *Pinguicula alpina* or *Astrantia carniolica* are either absent or non-dominant, but the moss layer is very rich. These stands are classified into the new association *Palustriello commutati-Veronice-tum urticifoliae*. Its nomenclatural type, *holotypus*, is relevé 1 in Table 4. The diagnostic species of the association are *Palustriella comutata*, *Conocephalum conicum*, *Veronica urticifolia*, *Asplenium trichomanes*, *Galeobdolon flavidum* and *Senecio ovatus*. The elevation of the relevés spans 350 m to 950 m, the geological bed-

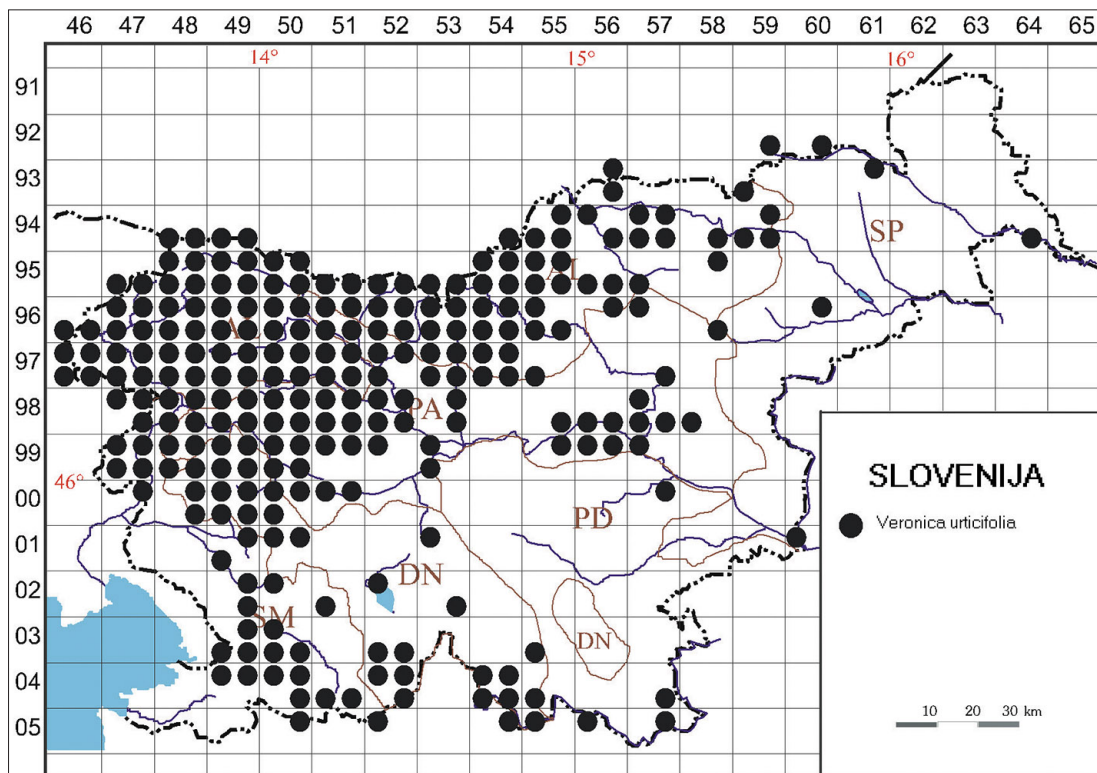


Figure 4: Distribution of *Veronica urticifolia* in Slovenia (FloVegSi database)

Slika 4: Razširjenost vrste *Veronica urticifolia* v Sloveniji po podatkih baze FloVegSi

rock is mixed, composed of limestone, marlstone and chert, in places also claystone; the aspect is predominantly shady.

Veronica urticifolia is a south-European montane species, a character species of the suballiance *Abieti-Piceenion* (AESCHIMANN et al. 2004b: 216). In Slovenia it is widespread in most submontane-montane-subalpine areas. It occurs in many forest, especially spruce and beech as well noble hardwood communities. Its sites are often shady and slightly moist rocks, both calcareous and non-calcareous, and in the broadest sense it can be considered also a character species of communities of moist rock crevices.

Stands of the association *Palustriello commutati-Veronictetum urticifoliae* characteristically occur in a distinctly forested environment and their species composition therefore comprises a good number of character species of alliances *Tilio-Acerion*, *Aremonio-Fagion* and order *Fagetalia sylvaticae*, i.e. species that are frequent in the surrounding forest communities. Table 4 also includes an additional relevé with an exclusively moss community, which is provisionally classified into the association *Cratoneuretum commutati*.

Table 5 comprises stands classified into the recently described association *Campanulo cespitosae-Saxifrage-*

tum aizoidis (DAKSKOBLER & MARTINČIČ 2020). It is characterised by the occurrence of the subalpine species *Saxifraga aizoides*, a character species of spring communities (*Montio-Cardaminetea*) in the moist shady rocks in gorges of the submontane and lower montane belt. The diagnostic species of the association are *Saxifraga aizoides*, *Campanula cespitosa*, *Molinia arundinacea*, *Palustriella commutata*, *Calamagrostis varia* and *Marchantia quadrata* (*Preissia quadrata*). But for the last (*Marchantia quadrata*) the relevés from the Liščak gorge comprise all of the listed species. Their ecology, however, is different. They were found at elevations spanning 725 m to 785 m, the geological bedrock is mainly limestone with admixture of claystone and chert, and the aspect is generally sunny. This is a distinctly erosion area (the nearest toponym is Pod Jamo) next to the Luknova Grapa gorge (this gorge starts under Mt. Luken and flows into the Liščak at Sopota). One relevé is from the right bank of the Liščak, the locality is at the Gradnikova Grapa gorge (under Mt. Gradnik), also in an erosion area, where the bedrock consists of limestone, marlstone and chert (see Figure 1). The sites are characterised by unconsolidated rock, with rock fragments that are not solid, but broken, loose and slightly moist. The species composition shows

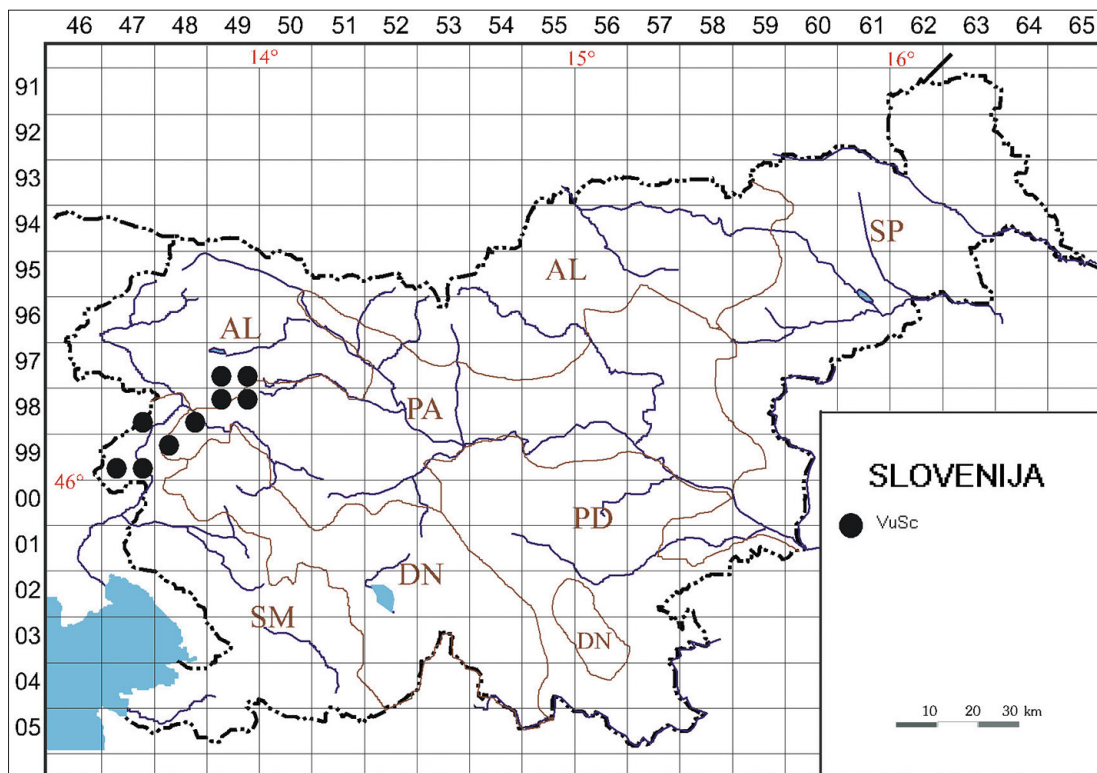


Figure 5: Approximate localities of stands of the association *Veronico urticifoliae-Saxifragetum cuneifolii* on the map of Slovenia
 Slika 5: Približna nahajališča sestojev asociacije *Veronico urticifoliae-Saxifragetum cuneifolii* na zemljevidu Slovenije

a good share of character species of screes and dry grasslands. These relevés can undoubtedly be classified into a new, drier form of this community, into the sub-association *Campanulo-Saxifragetum aizoidis ach-natheretosum calamagrostis*. Its differential species are *Achnatherum calamagrostis*, *Tortella tortuosa*, *Saxifraga crustata*, *Hieracium glaucum* and *Calamintha in-seleana*, which are good indicators of these site conditions on still slightly moist, debris covered, predominantly sunny rocks. The nomenclatural type of the new sub-association, *holotypus*, is relevé 5 in Table 5.

Table 6 comprises relevés of slightly moist, shady rock crevices in the forest belt, where *Saxifraga cuneifolia* occurs, whereas the previously discussed dominant species of moist rocks (except for *Veronica urticifolia*) are usually absent. *Saxifraga cuneifolia* frequently occurs in stony, shady, montane spruce, beech and fir-beech forests. Such stands were found also in the gorge of the Liščak, but our table comprises also similar relevés from other areas. Their approximate localities are shown in Figure 5.

These stands are classified into the new association *Veronico urticifoliae-Saxifragetum cuneifolii*. Its diagnostic species are *Saxifraga cuneifolia*, *Veronica urticifolia*, *Asplenium trichomanes*, *Exertotheca crista* (*Neckera crista*) and *Valeriana tripteris*. The nomenclatural type, *holotypus*, of the new association is relevé 5 in Table 6.

The distribution and sites of the south-European montane species *Saxifraga cuneifolia* in Slovenia was described in detail several years ago (DAKSKOBLER 2015). Its distribution is very similar to the distribution of *Veronica urticifolia*, which is also a character species of spruce forests; they occur on similar sites and frequently in the same communities, including communities of shady rocks on mixed calcareous-silicate bedrock. Stands of the association *Veronico urticifoliae-Saxifragetum cuneifolii* are slightly similar to the stands of the association *Palustriello-Veronicetum urticifoliae*, but the latter have a very different composition and medium coverage of the moss layer. The elevation of the localities ranges between 150 m and 1060 m, and the geological bedrock is varied as well: limestone, claystone, marlstone, limestone with chert and marl, rarely also dolomite and breccia. Stands of this association were found on all, albeit predominantly shady aspects. Most of the localities are situated in gorges and depressions in the beech belt. This is reflected also in the species composition, which features a number of companion species characteristic for beech, maple, beech-oak and spruce forests. We distinguish two variants: var. *typica*, which has no special differential species, and var. *Galeobdolon flavidum* (its differential

species include *Fissidens dubius* and *Phyllitis scolopendrium*), which characterises slightly moister rocks with more moss species and more companion species of beech forests.

3.3 Moist rock crevice communities with dominant *Aster bellidiastrum* and (or) *Viola biflora*

The south-European montane species *Aster bellidiastrum* is a character species of subalpine-alpine calcareous grasslands from the class *Elyno-Seslerietea* (AESCHIMANN et al. 2004b: 432), but frequently occurs also in communities of moist rock crevices (DAKSKOBLER & MARTINČIČ 2020), including those that we have already described or those that we are to describe herein: *Astrantio-Pinguiculetum alpinae*, *Paederoto luteae-Astrantietum carniolicae*, *Campanulo cespitosae-Saxifragetum aizoidis* and *Veronico urticifoliae-Violetum biflorae*. Table 7 comprises the phytosociological relevés (including a few relevés from the Liščak gorge) in which this species is the dominant vascular plant. Most of these relevés were made on riparian rocks that are periodically exposed to water from creeks or the river, in part also on rock walls next to watercourses in gorges and ravines, some also outside the pre-Alpine-Alpine region (Figures 6 and 7).

Stands in Table 7 are classified into the new association *Calamagrostio variae-Asteretum bellidiastrum* ass. nov. hoc loco. Its diagnostic species are *Aster bellidiastrum* and *Calamagrostis varia*, the only vascular plants with a constancy of more than 50% in 28 relevés; their counterparts among mosses are *Ctenidium molluscum* and *Tortella tortuosa*.

The nomenclatural type, *holotypus*, of the new association is relevé 7 in Table 7. We distinguish two variants, var. *Brachythecium rivulare* (differential species include other hygrophilous mosses: *Hygrohypnum luridum*, *Didymodon spadiceus*, *Pedinophyllum interruptum*, *Plagiumnium rostratum*, and *Veronica urticifolia* among vascular plants) on slightly moister sites, and var. *Tortella tortuosa* on slightly drier sites. Within this variant (Table 7) we can exclude the subvariant with *Sesleria caerulea* and the subvariant with *Petasites paradoxus*. One of the characteristics of the stands of this association is a substantial number of so-called accidental species, which occur due to the position of their sites near watercourses. Here we determined altogether 138 species, more than in any other discussed chasmo-phytic community. Due to the immediate vicinity of watercourses they become colonised by plants that are otherwise characteristic for forest, grassland and ruderal communities. However, none of these species on

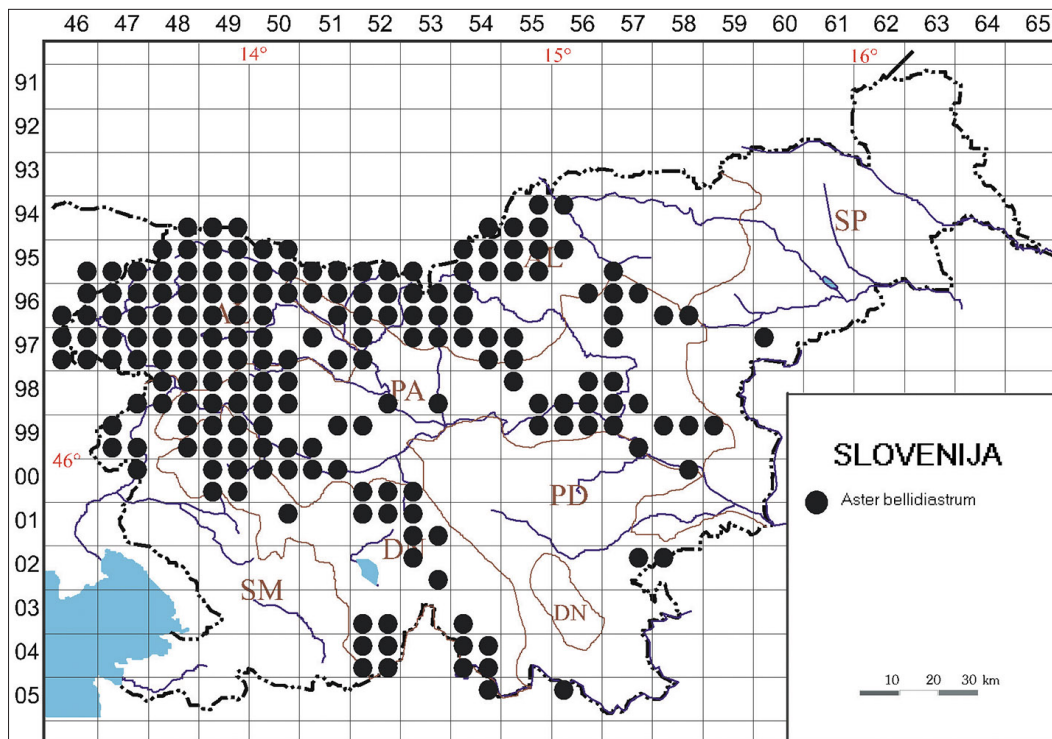


Figure 6: Distribution of *Aster bellidiastrum* in Slovenia (FloVegSi database).
 Slika 6: Razširjenost vrste *Aster bellidiastrum* v Sloveniji po podatkih v bazi FloVegSi.

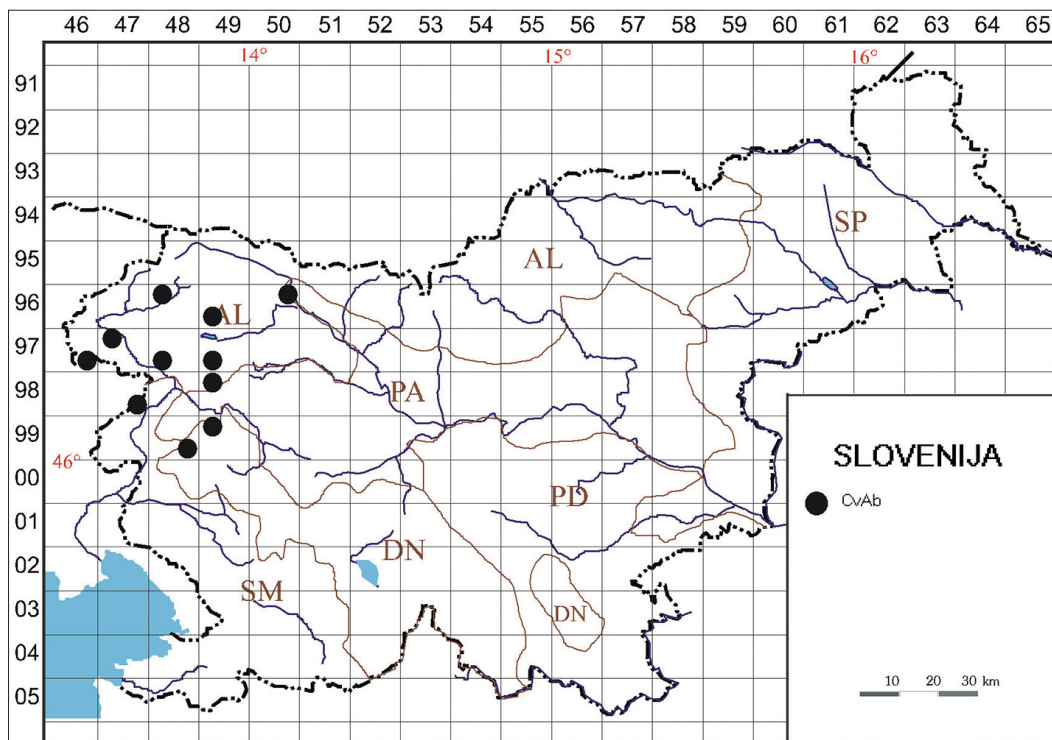


Figure 7: Localities of stands of the association *Calamagrostio variae-Asteretum bellidastri* on the map of Slovenia.
 Slika 7: Nahajališča sestojev asociacije *Calamagrostio variae-Asteretum bellidastri* na zemljevidu Slovenije.

these riparian rocks has a high frequency and they were recorded only on one or a few relevés. The elevation of the localities ranges from 235 m (at Bača under the hamlet of Slatne) to 780 m (Gačnik in Trebuša) or 785 m (under the Sopot waterfall in Liščak). The geological bedrock is limestone, dolomite, limestone or dolomite with chert, in places also with marl, rarely breccia or conglomerate. Several localities have both a shady and sunny aspect. In the stands of this association we collected and determined also two, relatively rare moss species, namely *Trichostomum crispulum* (on riparian rocks by the Bača River under the hamlet of Slatne, quadrant 9849/1) and *Palustriella decipiens* (riparian rocks by the Soča River at Srpenica, at 315 m a.s.l., which is one of the lowland localities of this species, otherwise distributed mainly in the subalpine-alpine belt – comp. DAKSKOBLER & MARTINČIČ 2021b: 63).

Viola biflora is an Arctic-alpine species, a character species of the class *Betulo-Alnetea viridis* (AESCHMANN et al. 2004a: 441). Its distribution in Slovenia is very similar to the distribution of *Aster bellidiastrum* (Figure 8).

It is relatively frequent in communities of moist rock crevices (DAKSKOBLER & MARTINČIČ 2020), in our case mainly in the stands of the association *Violo*

biflorae-Astrantietum carniolicae. In Table 8 we arranged the relevés of moist rock crevices and rock shelters, where this species is the dominant vascular plant in terms of constancy and medium coverage. Thus it can serve as the name-giving species and these stands are therefore classified into the new association *Veronica urticifoliae-Violetum biflorae*. Its diagnostic species are *Viola biflora*, *Veronica urticifolia* and *Conocephalum conicum*. The nomenclatural type of the new association, *holotypus*, is relevé 11 in Table 8. Even though there are some differences between the relevés in this table, it would be difficult to describe them at the rank of lower synsystematic units. Relevés 12–15 are classified into the variant with *Astrantia carniolica* and show certain similarity with the stands of the variant *Violo biflorae-Astrantietum carniolicae* var. *Viola biflora*. The second variant, evident from Table 8, is the variant with *Palustriella commutata* (relevés 16–25 in Table 8). Within this variant relevés 18 and 19 in Table 8 could be treated as the subvariant with *Primula auricula*. In our paper on the vegetation of the Prodar Gorge (DAKSKOBLER & MARTINČIČ 2021) we classified these two relevés into the provisional association *Primula auriculae-Violetum biflorae*. As a valid description of such an association would require more relevés,

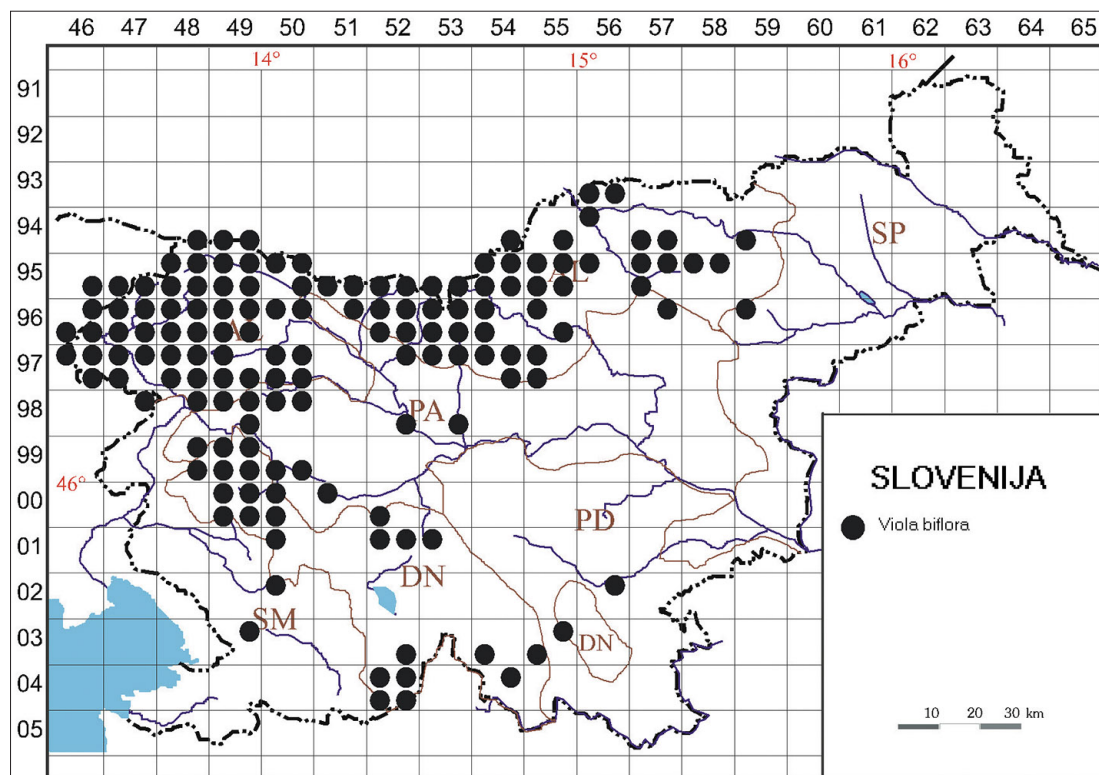


Figure 8: Distribution of *Viola biflora* in Slovenia (FloVegSi database).

Slika 8: Razširjenost vrste *Viola biflora* v Sloveniji po podatkih v bazi FloVegSi.

we provisionally assign these relevés to the association *Veronico-Violetum biflorae*. Other relevés in Table 9 are classified into the variant *typica*.

We did not find the localities of *Viola biflora* in the Liščak gorge, nor did we find localities of the stands of this association, which are otherwise common to the Vintgar Gorge at Podhom (DAKSKOBLER et al. 2021). Approximate localities of these stands are shown in Figure 9. They were found at elevations ranging from 210 m (the Idrijca valley at Stopnik) to 1000 m (Curk Waterfall under Mt. Krn), most often on dolomite as well as on dolomite with chert, limestone, limestone with chert and (or) marlstone, even on rock debris. Most localities have a shady aspect.

Table 9 comprises ten phytosociological relevés that grouped separately from the relevés of the association *Veronico-Violetum biflorae* (in hierarchical classification) and cannot be classified into this association. Due to the insufficient number of relevés and their considerable diversity they are classified into only provisionally described syntaxa. Relevés 1–9 in Table 9 are provisionally classified into the association *Paederota luteae-Violetum biflorae* nom. prov. Its diagnostic species are *Viola biflora* and *Paederota lutea*. Relevés 1–4

in this Table (we made them at the Curk Waterfall by the Kozjak stream under Mt. Krnčica) are classified into the variant with *Trisetum argenteum*. Its differential species include *Saxifraga aizoides* and *Marchantia quadrata* (*Preissia quadrata*). Relevé 5 (from the Kozjska Grapa gorge in the Trebuša Valley) is classified into the variant with *Saxifraga rotundifolia*. Relevés 6 and 7 (the first was made under Mt. Mangart and the second in the forest reserve Apica above Zapoden) are classified into the variant with *Cystopteris fragilis* (its differential species is also *Conocephalum conicum*). Relevé 8 from Gozdec in the Kanin Mountains is classified into the variant with *Campanula carnica* (its differential species is also *Cyclamen purpurascens*) and relevé 9 (from the Lopučnica valley) into the variant with *Saxifraga sedoides* (its differential species include *Cystopteris montana* and *Heliosperma pusillum*). With its full floristic composition relevé 10 stands out the most from other relevés with dominant *Viola biflora*. It was made by a small concavity under Mt. Mangart. It is provisionally classified into the association *Cerastio subtriflorae-Violetum biflorae* nom. prov. Its diagnostic species are *Viola biflora*, *Cerastium subtriflorum*, *Festuca nitida*, *Doronicum glaciale* and *Sanonia uncinata*.

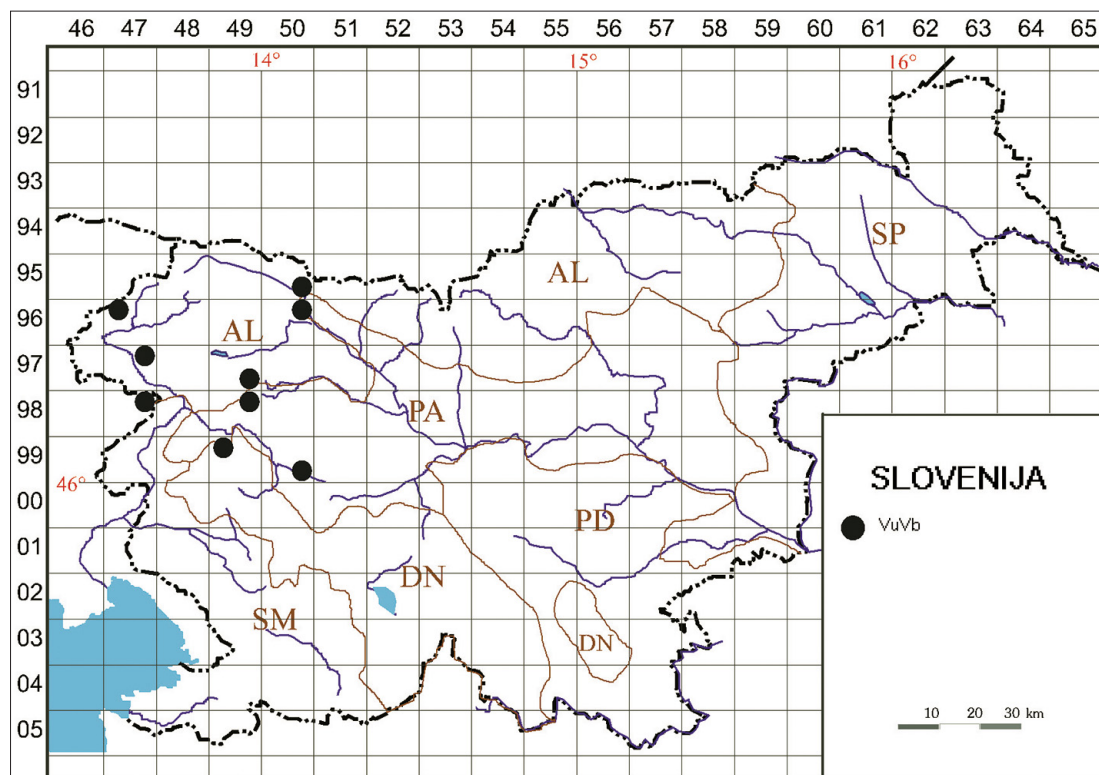


Figure 9: Approximate localities of stands of the association *Veronico urticifoliae-Violetum biflorae* on the map of Slovenia
 Slika 9: Približna nahajališča sestojev asociacije *Veronico urticifoliae-Violetum biflorae* na zemljevidu Slovenije

3.4 Other chasmophytic communities above the Liščak gorge

Table 10 comprises eleven phytosociological relevés of chasmophytic communities in the Liščak gorge that cannot be classified into any of the associations described herein. As we do not have a sufficient number of relevés to adequately classify them into a syntaxonomic system, they were given provisional names. The relevés vary between each other and in our opinion only relevés 9–11 in Table 10 can be assigned to the alliance *Astrantio carniolicae-Paederotium luteae*. Relevés 9 and 10 are provisionally classified into the association *Valeriano tripteridis-Veronicetum urticifoliae* nom. prov. (see DAKSKOBLER & MARTINČIČ 2023), and relevé 11 into the provisional association *Palustriello commutati-Phyllitidetum scolopendrii* nom. prov. The elevation of the relevés ranges between 350 m and 530 m, the aspect is shady, and the geological bedrock is limestone with admixture of chert or marlstone. For the time being, relevés 1–5 are classified into the alliance *Physoplexido comosae-Saxifragion petraeae*, more specifically relevé 1 into the provisional association *Sileno hayekianae-Campanuletum carnicae* nom. prov., relevés 2 and 3 into the provisional association *Seslerio caeruleae-Sedetum albi* nom. prov., and relevés 4 and 5 into the provisional association *Arabido alpinae-Sedetum albi* nom. prov. They were made at elevations between 770 m and 1100, on slopes above the gorge rather than in the gorge, on sunny aspects; the bedrock is predominantly limestone. Relevés 6–8 are provisionally classified into the association *Tortello tortuosae-Asplenietum trichomanis* nom. prov. These relevés were made on sunny aspects at elevations between 410 m and 560 m; the geological bedrock is limestone admixed with claystone or marlstone.

3.5 Survey of described syntaxa and argumentation for the alliance *Astrantio carniolicae-Paederotium luteae*

Chasmophytic communities on moist calcareous or mixed calcareous-silicate bedrock in the submontane-altimontane (subalpine) belt in the Southeastern Alps and in the northern part of the Dinaric Alps have so far been classified into the alliance *Cystopteridion fragilis* Richard 1972. Recently (DAKSKOBLER IN MARTINČIČ 2020) we listed the reasons why they could also be classified into a vicariant alliance of the alliance *Physoplexido comosae-Saxifragion petraeae* Mucina et Theu-

rillat 2015. We proposed it be named *Astrantio carniolicae-Paederotium luteae* nom. prov. The material processed for this paper (see Table 11) provided sufficient grounds for its valid description.

Astrantio carniolicae-Paederotium luteae all. nov. hoc loco.

The nomenclatural type, *holotypus*, of the new alliance is the association *Astrantio carniolicae-Primuletum carniolicae* Dakskobler & Martinčič 2020 (DAKSKOBLER & MARTINČIČ 2020, Table 1).

It is described as an alliance of moist rock crevices in the Southeastern Alps and the northern part of the Dinaric Alps.

The diagnostic species of the new alliance are divided into phytogeographical-ecological and ecological.

The former comprise *Astrantia carniolica*, *Paederota lutea* and *Primula carniolica*, to a smaller extent also diagnostic species of alliances *Physoplexido comosae-Saxifragion petraeae* and *Aremonio-Fagion* as well as other southeastern-Alpine-northern-Dinaric species that individually occur in their stands. These sufficiently differentiate them from similar communities of the alliance *Cystopteridion*.

The ecological diagnostic species are *Aster bellidistrum*, *Hydrogonium croceum* (*Barbula crocea*), *Carex brachystachys*, *Cystopteris fragilis*, *Asplenium viride*, *Eucladium verticillatum*, *Fissidens dubius*, *Hymenostylium recurvirostrum*, *Apopellia endiviifolia* (*Pellia endiviifolia*), *Palustriella commutata*, *Marchantia quadrata* (*Preissia quadrata*), *Pinguicula alpina*, *Orthothecium rufescens*, *Saxifraga aizoides*, *Tofieldia calyculata*, *Valeriana saxatilis*, *V. tripteris* and *Viola biflora*. These are character species of various alliances and classes, but differentiate the studied stands against communities from the vicariant alliance *Physoplexido comosae-Saxifragion petraeae*.

In addition to its holotype association and the below-listed associations discussed in this paper, the new alliance also includes associations *Ranunculo traunfellneri-Paederoteum luteae* Surina 2005, *Primuletum carniolicae* Accetto 2008, *Neckero crispae-Campanuletum justiniana* Accetto 1995, *Trisetum argentei-Leontodontetum brumatii* Dakskobler, Seliškar et Vreš 2012, *Phytumato columnae-Primuletum carniolicae* Dakskobler et Martinčič 2020 and *Primulo carniolicae-Potentilletum clusiana* Dakskobler & Martinčič 2020.

The synthetic table (Table 11) comprises eight columns that represent only the communities of moist rocks validly described in this paper. With hierarchical classification we obtained the dendrogram in Figure 10.

The syntaxa that are the most similar in terms of floristic similarity, which takes into account the constancy of all recorded species, are *Astrantio carniolicae-Pinguiculetum alpinae*, *Palustriello commutati-Astrantietum carniolicae*, *Violo biflorae-Astrantietum carniolicae* and *Veronico urticifoliae-Violetum biflorae*, and syntaxa *Palustriello commutati-Veronicetum urticifoliae* and *Veronico urticifoliae-Saxifragetum cuneifolii*. The syntaxa that stand out the most are *Calamagrostio variae-Asteretum bellidiastri* and *Campanulo cespitosae-Saxifragetum aizoidis achnatheretosum calamagrostis*. Communities with dominant *Pinguicula alpina*, *Astrantia carniolica* and (or) *Viola biflora*, and communities with dominant *Veronica urticifolia* and (or) *Saxifraga cuneifolia* are more similar. Some of the

described syntaxa could be grouped based solely on their floristic similarity, but based on the dominant species with the highest medium coverage criterion this is no longer possible. Table 11 also shows that all described associations comprise a sufficient number of diagnostic species to be classified into the alliance *Astrantio-Paederotium luteae*.

3.6 Classification of the researched communities into the syntaxonomical system

Asplenieta trichomanis (Br.-Bl. in Meier et Br.-Bl. 1934) Oberd. 1977

Potentilletalia caulescentis Br.-Bl. in Br.-Bl. et Jenny 1926

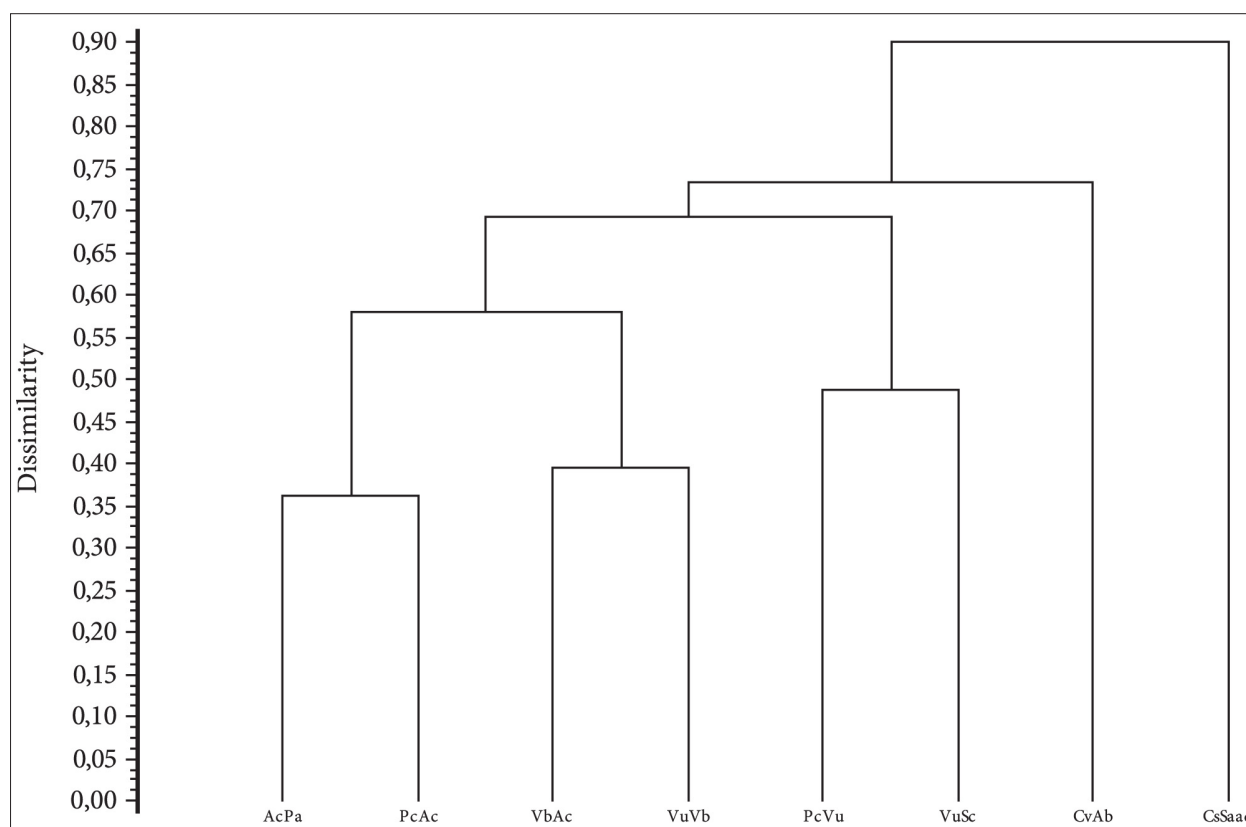


Figure 10: Dendrogram of communities of moist rock crevices in the Julian Alps and their foothills (UPGMA, 1-similarity ratio).
Slika 10: Dendrogram združb vlažnih skalnih razpok v Julijskih Alpah s prigorjem (UPGMA, 1-similarity ratio).

Legend (Legenda):

AcPa *Astrantio carniolicae-Pinguiculetum alpinae* (Table 1)

PcAc *Palustriello commutati-Astrantietum carniolicae* (Table 3)

VbAc *Violo biflorae-Astrantietum carniolicae* (Table 2)

VuVb *Veronico urticifoliae-Violetum biflorae* (Table 8)

PcVu *Palustriello commutati-Veronicetum urticifoliae* (Table 4)

VuSc *Veronico urticifoliae-Saxifragetum cuneifolii* (Table 6)

CvAb *Calamagrostio variae-Asteretum bellidiastri* (Table 7)

CcSaac *Campanulo cespitosae-Saxifragetum aizoidis achnatheretosum calamagrostis* (Table 5)

Astrantio carniolicae-Paederotion luteae all. nov. hoc loco
Astrantio carniolicae-Pinguiculetum alpinae Dakskobler et Martinčič 2020
 var. *Calamagrostis varia*
Violo biflorae-Astrantietum carniolicae ass. nov. hoc loco
 var. *Hymenostylium recurvirostrum*
 var. *Rhodothamnus chamaecistus*
 var. *typica*
 var. *Viola biflora*
Palustriello commutati-Astrantietum carniolicae ass. nov. hoc loco
 var. *Carex mucronata*
 var. *typica*
Palustriello commutati-Veronicetum urticifoliae ass. nov. hoc loco
Campanulo cespitosae-Saxifragetum aizoidis Dakskobler et Martinčič 2020
achnatheretosum calamagrostis subas. nov. hoc loco
Veronico urticifoliae-Saxifragetum cuneifolii ass. nov. hoc loco
 var. *typica*
 var. *Galeobdolon flavidum*
Calamagrostio variae-Asteretum bellidiastri ass. nov. hoc loco
 var. *Brachythecium rivulare*
 var. *Tortella tortuosa*
Veronico urticifoliae-Violetum biflorae ass. nov. hoc loco
 var. *typica*
 var. *Astrantia carniolica*
 var. *Palustriella commutata*
 subvar. *Primula auricula*
Paederoto luteae-Violetum biflorae nom. prov.
 var. *Trisetum argenteum*
 var. *Saxifraga rotundifolia*
 var. *Campanula carnica*
 var. *Saxifraga sedoides*
Cerastio subtriflorae-Violetum biflorae nom. prov.
Valeriano tripteridis-Veronicetum urticifoliae nom. prov.
Palustriello commutati-Phyllitidetum scolopendrii nom. prov.
Physoplexido comosae-Saxifragion petraeae Mucina et Theurillat 2015
Sileno hayekianae-Campanuletum carnicae nom. prov.
Seslerio caeruleae-Sedetum albi nom. prov.
Arabido alpinae-Sedetum albi nom. prov.
Tortello tortuosae-Asplenietum trichomanis nom. prov.

Montio-Cardaminetea Br.-Bl. & Tx. ex Klika et Hadač 1944

Montio-Cardaminetalia Pawłowski et al. 1928

Cratoneurion commutati Koch 1928

Cratoneuretum commutati Aichinger 1933

3.7 Tall-herb community with dominant *Lunaria rediviva* on colluvial-deluvial soils in gorges and ravines

One of the specifics of the vegetation in the Liščak gorge is also tall herbs on colluvial soils, at the foot of very steep slopes, especially on the right bank of the creek in its lower and medium course. The dominant tall herb species here is *Lunaria rediviva*. Having recorded similar communities also elsewhere in western Slovenia we prepared a table (Table 12) with 40 relevés and arranged it with hierarchical classification. Most of the relevés in the table can be classified into the new association *Lamio orvalae-Lunarietum redivivae* ass. nov. hoc loco. Its diagnostic species are *Lunaria rediviva*, *Galeobdolon flavidum*, *Sambucus nigra*, *Phyllitis scolopendrium*, *Lamium orvala*, *Cardamine pentaphyllos*, *Plagiomnium undulatum* and *Thamnobryum alopecurum*. In a recent article we already described it as a provisional association (DAKSKOBLER & MARTINČIČ 2021).

Lunaria rediviva is a species characteristic for noble hardwood forests from the alliance *Tilio-Acerion*. It occurs in most parts of Slovenia (Figure 11), in noble hardwood communities as well as in riparian woodland, for example in stands of associations *Lamio orvale-Salicetum albae*, *Lamio orvalae-Alnetum incanae* and *Lamio orvalae-Alnetum glutinosae*.

On smaller, 10 m² to 100 m² large areas, its stands are syndynamically related in particular to communities of noble hardwood forests from the alliance *Tilio-Acerion* (associations *Fraxino orni-Aceretum pseudo-platani*, *Veratro nigri-Fraxinetum*, *Hacquetio-Fraxinetum*, *Lamio orvalae-Aceretum*, *Omphalodo-Aceretum*) and mesophilous beech communities from the alliance *Aremonio-Fagion* (*Ornithogalo pyrenaici-Fagetum*, *Lamio orvalae-Fagetum*, *Omphalodo-Fagetum*, *Isopyro-Fagetum*). In places, successional development proceeds across elderberry shrubs from the subassociation *Lamio orvalae-Sambucetum nigrae* Poldini et Vidali 1995 *lunarietosum redivivae* (Table 13), which is described below.

Approximate localities of recorded stands of this association are shown in Figure 12. They were made in the Alpine, pre-Alpine, sub-Mediterranean, Dinaric and pre-Dinaric phytogeographical regions. The

elevation of the relevés ranges from 100 m (Petnik gorge at Branik, see also DAKSKOBLER & POLDINI 2021) to 1050 m (Kacencpoh gorge at Podbrdo). The average number of species per relevé is 21, and the number of species ranges between 9 (rockfall material in the Doblarca gorge) and 45 (the relevé at the contact of the colluvium and alluvium in the Prodar gorge at Podbrdo), depending on the size of the community surface area and certain ecological factors (rockiness, rock debris or gravel, admixture of non-calcareous rocks).

Even though our relevés comprise also *Aruncus di-oicus* they cannot be classified into the association *Arunco vulgaris-Lunarietum redivivae* Sádlo et Petřík in Chytrý 2009, because its stands belong in a group of ruderal communities and are classified into the alliance *Impatienti noli-tangere-Stachyion sylvaticae* and class *Galio-Urticetea* (SÁDLO & PETŘÍK 2009). The studied association is classified into the alliance *Arunco-Petasion*, which comprises tall herb communities on stony, nutrient-rich soils on steep slopes in the montane and upper montane belt in the Alps. The nomenclatural type, *holotypus*, of the new association *Lamio orvalae-Lunarietum redivivae* is relevé 8 in Table 12.

Relevé 39 in Table 12 (the locality under Mt. Črna Gora above mountain pasture Za Liscem in the vicinity of Mt. Črna Prst) is classified into the provisional subassociation *Doronico austriaci-Adenostyletum alliariae lunarietosum redivivae* nom. prov., and relevé 40 in Table 12 (the bottom of the frost hollow above Pradol between Mt. Mija and Mt. Ljubija) into the provisional association *Lunario redivivae-Saxifragetum rotundifoliae* nom. prov.

The studied communities with dominant *Lunaria rediviva* are classified into higher syntaxonomic units as follows:

Mulgedio-Aconitetea Hadač et Klika in Klika et Hadač 1944

Adenostyletalia alliariae Br.-Bl. 1926

Adenostylion alliariae Br.-Bl. 1926

Doronico austriaci-Adenostyletum alliariae Horvat ex Horvat et al. 1974

lunarietosum redivivae nom. prov.

Lunario redivivae-Saxifragetum rotundifoliae nom. prov.

Petasito-Chaerophylletalia Morariu 1967

Arunco-Petasion albi Br.-Bl. et Sutter 1977

Lamio orvalae-Lunarietum redivivae ass. nov. hoc loco

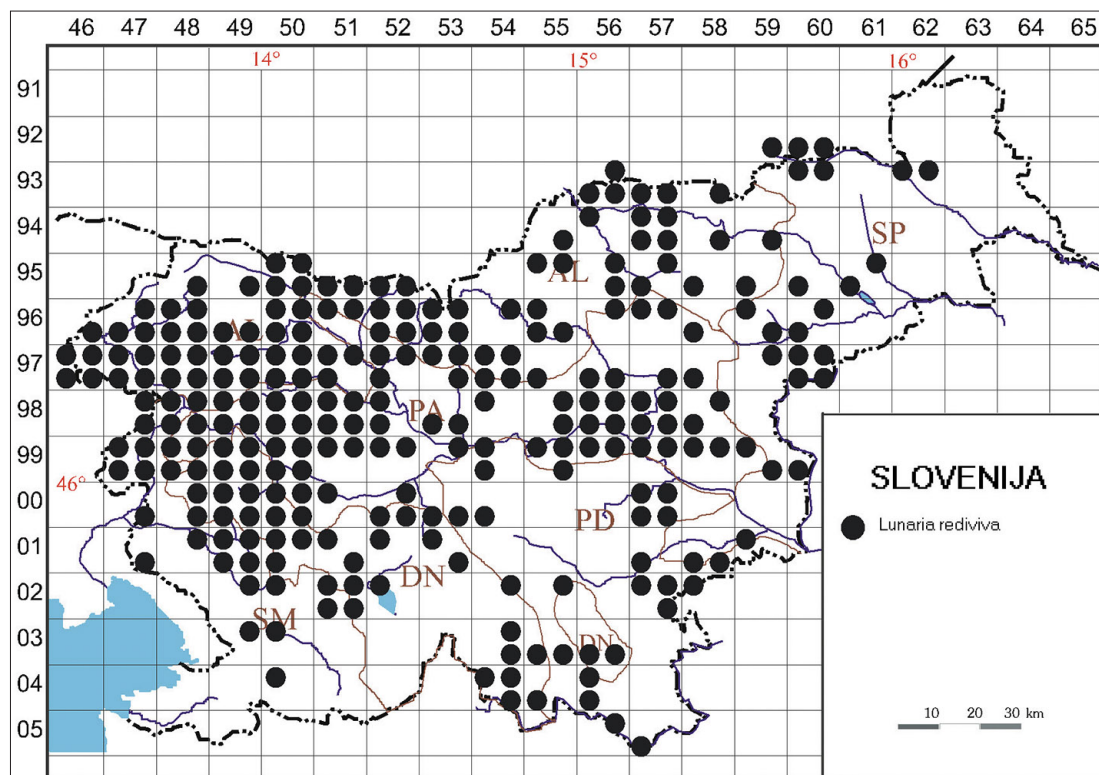


Figure 11: Distribution of *Lunaria rediviva* (FloVegSi database).

Slika 11: Razširjenost vrste *Lunaria rediviva* v Sloveniji (podatkovna baza FloVegSi).

3.8 Shrub communities of *Sambucus nigra* and *Lamium orvala* (*Lamio orvalae-Sambucetum nigrae*) in Slovenia

As tall herbs with dominant *Lunaria rediviva* (*Lamio orvalae-Lunarietum redivivae*) are one of the specifics of the vegetation at Liščak and are often syndynamically related to *Sambucus nigra* shrubs, we hierarchically classified 25 relevés of these shrubs and arranged them in Table 13 (their approximate localities are shown in Figure 13). Most, at least 24 of them, can be classified into the association *Lamio orvalae-Sambucetum nigrae*, which was described by POLDINI & VIDALI (1995), who classified it into the class *Querco-Fagetea* and order *Prunetalia spinosae*. They divided it into two geographical variants: var. geogr. *Helleborus odoratus* – the Friulian race (*razza friulana*), and var. geogr. *Helleborus istriacus* – the Karstic race (*razza carsica*), and listed *Lamium orvala* as the only diagnostic species.

Some of our relevés were made in gaps of Illyrian beech forests from the alliance *Aremonio-Fagion*, most often on potential sites of associations *Lamio orvalae-Fagetum*, *Arunco-Fagetum* or *Ornithogalo-Fagetum*, and some on very stony, gravelly sites (colluvium, rockfall material) under rock walls, where we find potential sites of noble hardwood communities from the alliance *Tilio-Acerion*.

Floristically, they are clearly different from the Friuli relevés, most notably in the frequency and high coverage of *Lunaria rediviva* in most of the relevés. Diagnostic species of the association are *Sambucus nigra*, *Lamium orvala*, *Phyllitis scolopendrium* and *Geranium robertianum*. *Anemone trifolia* is the geographical differential species (the first three relevés in Table 13 from Mt. Donačka Gora and relevé 25 from Istria do not belong in this geographical variant). Relevés 1–22 in Table 13 are classified into the new subassociation *lunarietosum redivivae* subass. nov. hoc loco. Its differential species are *Lunaria rediviva*, *Circaea lutetiana* and *Cardamine pentaphyllos*. Its nomenclatural type, *holotypus*, is relevé 11 in Table 13. The elevation of the localities ranges from 230 m to 780 m (from the colline to the lower montane belt) and the aspect is predominantly shady. The soil is colluvial-delluvial, in places also Chromic Cambisols or eutric soils.

We distinguish several variants. The localities of the stands of the variant with *Impatiens noli-tangere* (relevés 1–6) are in the old growth forest remnant under Mt. Donačka Gora, in the Zapoška Grapa gorge under Mt. Porezen, and in the Vintgar Gorge at Podhom. The differential species of this variant are also *Milium effusum* and *Urtica dioica*, the latter mainly on account of high medium coverage. The listed spe-

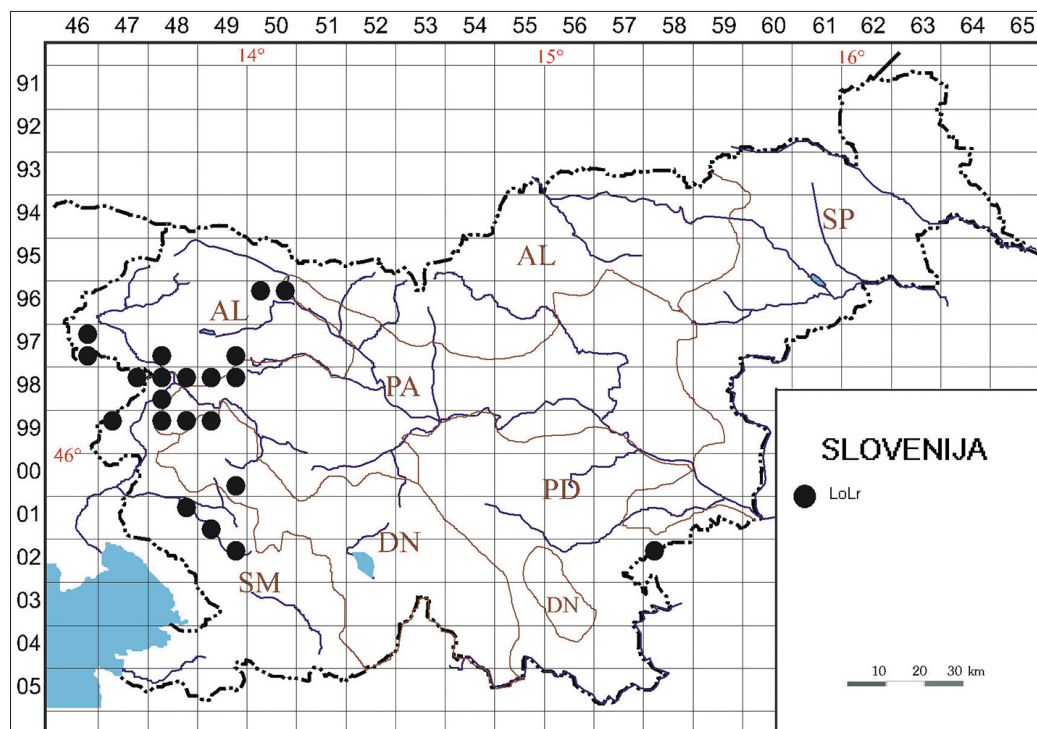


Figure 12: Localities of stands of the association *Lamio orvalae-Lunarietum redivivae* on the map of Slovenia.
Slika 12: Nahajališča sestojev asociacije *Lamio orvalae-Lunarietum redivivae* na zemljevidu Slovenije.

cies indicate nutrient-rich sites. The localities of the stands of the variant with *Cardamine trifolia* (its differential species are also *Fraxinus excelsior* and *Tilia platyphyllos*), relevés 7–14, are in the Avšček Gorge (Banjšice) on the sites of associations *Ornithogalo-Fagetum* and *Lamio orvalae-Fagetum*. Relevés of the stands of the variant with *Scopolia carniolica* (relevés 15–20) were made in the gorges of Avšček, Raskovec (Žirovnica near Žiri), Pekel at Postaja and in the Vratarska Grapa gorge (the latter two are on the northern rim of the Banjšice Plateau above the Idrija Valley). The stands of this variant occur on aceretal sites, in the vicinity of stands of associations *Veratro nigri-Fraxinetum* or *Hacquetio-Fraxinetum*. Relevés 21 and 22 are classified into the variant with *Leucosium vernum* (its locality is a small gorge at the village of Svino in the Kobarid area). Relevés 23 and 24 do not belong in the subassociation *lunarietosum redivivae*; it is classified only at the rank of variant, namely var. *Adenostyles glabra*. Its locality is Kašana in the Zadlaščica Gorge, and its site is the rockfall material under the wall. *Urtica dioica* has high medium coverage. Relevé 25 in Table 13 also does not belong in the subassociation *lunarietosum*, possibly not even into the association *Lamio orvalae-Sambucetum*, because it does not comprise its diagnostic species. For the time being it is still treated in the framework of this

association as a special variant with *Ruscus aculeatus* (the differential species is also *Primula vulgaris*). In terms of species composition this stand is still more similar to the stands of this association than to the stands of the association *Bryonio dioicae-Sambucetum nigrae*, which was also described by POLDINI & VIDALI (1995). Its locality is Branski Bošk in a shady gorge under the village of Korte in Istria, in the vicinity of localities of the association *Ornithogalo-Carpinetum betuli*.

According to our findings, the association *Lamio orvalae-Sambucetum nigrae* is classified into higher syntaxonomic units as follows:

Quercus-Fagetea Br.-Bl. et Vlieger in Vlieger 1937 (*Carpino-Fagetea sylvaticae* Jakucs ex Passarge 1968)

Fagetalia sylvaticae Pawłowski 1928

Tilio-Acerion Klika 1955

Lamio orvalae-Sambucetum nigrae Poldini et Vidali 1995

lunarietosum redivivae subass. nov.

var. *Impatiens noli-tangere*

var. *Cardamine trifolia*

var. *Scopolia carniolica*

var. *Leucosium vernum*

var. *Adenostyles glabra* (prov.)

var. *Ruscus aculeatus* (prov.)

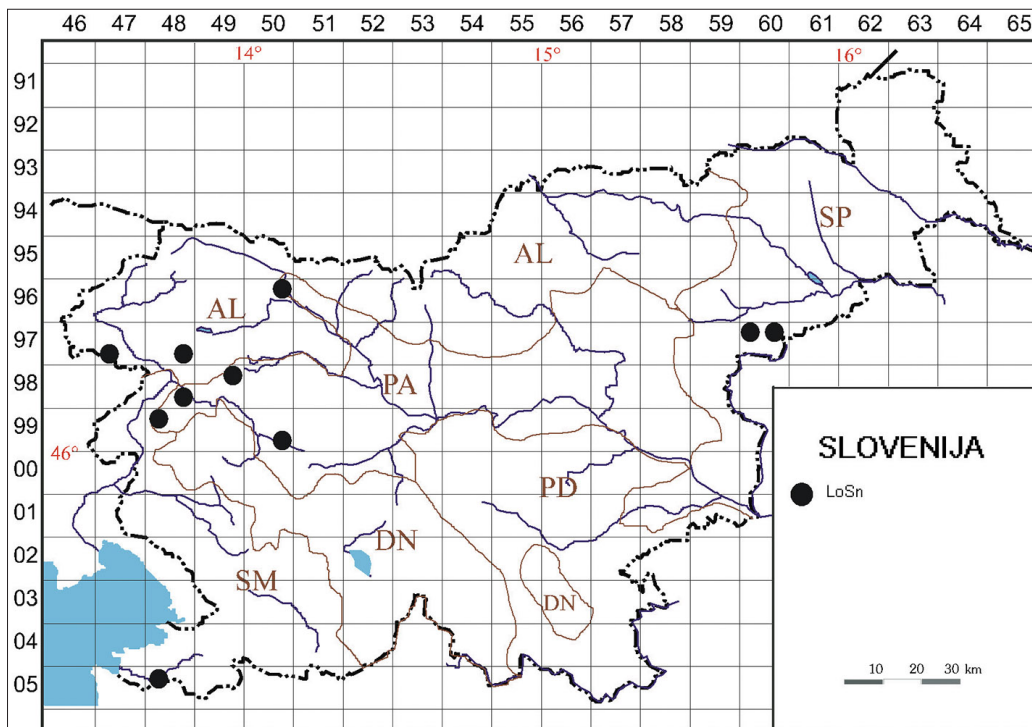


Figure 13: Approximate localities of stands of the association *Lamio orvalae-Sambucetum nigrae* on the map of Slovenia.
 Slika 13: Nahajališča sestojev asociacije *Lamio orvalae-Sambucetum nigrae* na zemljevidu Slovenije.

4. CONCLUSIONS

The Liščak gorge in the Southern Julian Alps is a natural feature of local importance, mainly on account of its geomorphological and geological specifics. Its watershed area is almost entirely forested, uninhabited and with little direct human impact. There are no artificial barriers on the creek, only remnants of former mills and a few signs of former charcoal production and floating of wood. In addition to numerous localities of protected *Taxus baccata* and endemic *Aconitum angustifolium*, communities of moist rock crevices also feature among the botanical curiosities of this gorge. They are classified into the following associations: *Astrantio carniolicae-Pinguiculetum alpinae*, *Palustriello commutati-Astrantietum carniolica*, *Palustriello commutati-Veronicetum urticifoliae*, *Veronico urticifoliae-Saxifragetum cuneifolii*, *Calamagrostio varie-Asteretum bellidiastris* and *Campanulo cespitosae-Saxifragetum aizoidis*. All but the first and the last were described as new.

The most important in view of nature conservation are the stands of the first (*Astrantio-Pinguiculetum*, localities of protected *Pinguicula alpina*), the second (*Palustriello-Astrantietum carniolica*, localities of two relatively rare mosses *Trichostomum crispulum* and *Microlejeunea ulicina* in the ravine of Velike Luti in the Kneška Grapa gorge), and the last (*Campanulo-Saxifragetum*) association, namely because of the specific character of the erosion area by the Luknova Grapa gorge, where the frigidophilous and hygrophilous subalpine-alpine species *Saxifraga aizoides* and the thermophilous scree species *Achnatherum calamagrostis* occur together. When describing the communities of moist rock crevices at Liščak we also analysed our relevés from other gorges in the Julian Alps and their foothills, and described two new associations, *Violo biflorae-Astrantietum carniolicae* and *Veronico urticifoliae-Violetum biflorae*, which, however, do not

have any localities in Liščak. Based on the newly described communities analysed herein and similar communities in the northern-Dinaric and pre-Alpine part of Slovenia we also described a new alliance *Astrantio carniolicae-Paederotium luteae*, into which we assign the studied communities.

A special feature of the Liščak gorge is also tall herbs with *Lunaria rediviva* and *Lamium orvala* on colluvium (gravel) at the foot of steep slopes. Based on the relevés from this and other gorges in Slovenia we classify such stands into the new association *Lamio orvalae-Lunarietum redivivae*. One of its character species is also the shrub *Sambucus nigra*, which is occasionally, on similar sites in the next successional stage, a dominant species in the stands of the association *Lamio orvalae-Sambucetum nigrae*. Such stands are known from the neighbouring Friuli-Venezia Giulia. We documented them with a phytosociological table for Slovenia and described a new subassociation with *Lunaria rediviva* (*lunarietosum redivivae*).

Associations *Violo biflorae-Astrantietum carniolicae*, *Calamagrostio variae-Asteretum bellidiastris*, *Veronico urticifoliae-Violetum biflorae*, *Lamio orvalae-Lunarietum redivivae* and *Lamio orvalae-Sambucetum nigrae* are new to the vegetation of the Triglav National Park (our descriptions take into account also the relevés from Trenta, Loška Koritnica, Moznica, Zadlaščica, Voje, Kot, the Pokljuka ravine and Vintgar).

Chasmophytic communities described in this paper belong to the Natura 2000 habitat type 8210 Calcareous rocky slopes with chasmophytic vegetation and 7220* Petrifying springs with tufa formation (*Cratoneurion*), and tall herbs with *Lunaria rediviva* belong in Natura 2000 habitat type 6430 Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels.

5 POVZETEK

Liščak je okoli 3 km dolg potok v Kneški grapi in Baški dolini v južnih Julijskih Alpah. Izvira na nadmorski višini okoli 1000 m pod goro Ploha (1270 m) v Tolminsko-Bohinjskem pogorju in se izliva v reko Knežo na nadmorski višini 331 m. Na zračni razdalji okoli 2500 m premaga višinsko razliko skoraj 700 m. Z obeh bregov se v potok izlivajo številni pritoki s še večjim padcem kot ga ima glavna grapa. Ta je zelo ozka, le z redkimi manjšimi razširitvami, kjer se kopiči prod in pobočni grušč. Geološka podlaga je zelo pisana: dolomit, apne-

nec, roženec, laporovec, glinavec (BUSER 1986, 1987). Ker je grapa obrnjena proti jugovzhodu, je podnebje razmeroma toplo in humidno, z letnim povprečjem padavin več kot 2000 mm (ZUPANČIČ 1998) in srednjo letno temperaturo okoli 7-8 °C (CEGNAR 1998).

V povodju Liščaka (3,42 km²) je gozdnatost okoli 90 %. Največje površine gozdnih sestojev uvrščamo v naslednje asociacije: *Seslerio autumnalis-Fagetum*, *Lamio orvalae-Fagetum*, *Saxifraga cuneifolii-Fagetum*, *Fraxino orni-Ostryetum* in *Veratro nigri-Fraxinetum excelsioris*.

V celotnem povodju Liščaka ni več nobene nasejane hiše, na potoku so še ostanki mlinov, ni pa nobenih umetnih pregrad in drugih neposrednih človekovih vplivov. Zaradi številnih geoloških in geomorfoloških posebnosti sta potok in njegova grapa zavarovana kot naravna vrednota regionalnega oz. lokalnega pomena (ROJŠEK 1986, 1991, <https://www.naravovarstveni-atlas.si/web/DefaultNvaPublic.aspx>).

Vegetacijo v povodju Liščaka smo začeli raziskovati leta 1986, nadaljevali v letih 1987 in 1988. Po dolgem času smo to grapo ponovno obiskali leta 2015 in s pomočjo in vodenjem Petra Razpeta predvsem v letih 2018, 2019, 2020 in 2021 v njej naredili več kot 200 fitocenoloških in florističnih popisov. Podobo celotnega rastlinstva in rastja bomo opisali v drugem članku. V tem se posvečamo izključno rastju vlažnih skalnih razpok in visokemu steblikovju na vlažnem pobočnem grušču (slika 1).

Popise iz Liščaka in njegove neposredne okolice (Velike Luti) smo želeli umestiti v sintaksonomski sistem. Pri nekaterih popisih je bilo to mogoče, pri drugih ne, zato smo v nekatere preglednice uvrstili tudi popise iz nekaterih drugih grap, kjer zadnja leta proučujemo rastje skalnih razpok (DAKSKOBLER et al. 2021, DAKSKOBLER & MARTINČIČ 2020, 2021) in na tej podlagi opisali nekatere nove asociacije. V združbah vlažnih skalnih razpok podgorskega in gorskega pasu v Julijskih Alpah s prigorjem večinoma prevladujejo naslednje cevnice *Pinguicula alpina*, *Astrantia carniolica*, *Viola biflora*, *Aster bellidialstrum*, *Veronica urticifolia*, *Valeriana tripteris*, *V. saxatilis*, *Saxifraga cuneifolia*, *Saxifraga aizoides*, *Asplenium viride*, *A. trichomanes* in mahovi in jetrenjaki *Orthothecium rufescens*, *Palustriella commutata*, *Hymenostylium recurvirostrum* in *Conocephalum conicum*. Kljub precejšnji floristični podobnosti jih ne moremo uvrstiti le v eno samo asociacijo. Zato smo pri opisih novih združb na rangi asociacije upoštevali tudi stalnost in srednje zastiranje prevladujočih vrst na popisnih ploskvah, saj prav po tem znaku te združbe lahko prepoznamo tudi na terenu. Podobno ravnamo v nekaterih primerih tudi pri traviščnih, grmiščnih in gozdnih združbah, ko je za uvrstitev v določeno asociacijo odločilna prevladujoča vrsta najvišje sestojne plasti.

Po napisanem pristopu smo v grapi Liščaka prepoznali naslednje asociacije: *Astrantio carniolicae-Pinguiculetum alpinae*, *Palustriello commutati-Astrantietum carniolica*, *Palustriello commutati-Veronicetum urticifoliae*, *Veronico urticifoliae-Saxifragetum cuneifolii*, *Calamagrostio varie-Asteretum bellidialstri* in *Campanulo cespitosae-Saxifragetum aizoidis*. Vse razen prve in zadnje smo opisali kot nove.

Naravovarstveno najbolj vredni so sestoji prve (*Astrantio-Pinguiculetum*, nahajališča zavarovane

vrste *Pinguicula alpina*), druge (*Palustriello-Astrantietum carniolica*, nahajališča dveh razmeroma redkih mahovnih vrst *Trichostomum crispulum* in *Microlejeunea ulicina* v soteski Velike Luti v Kneški grapi) in zadnje (*Campanulo-Saxifragetum*), zaradi posebnosti erozijskega območja ob Luknovi grapi, kjer skupaj uspevata hladno- in vlagoljubna subalpinsko-alpinska vrsta *Saxifraga aizoides* in toploljubna vrsta melišč *Achnatherum calamagrostis*. Ob opisovanju združb vlažnih skalnih razpok ob Liščaku smo v pretres in obravnavo vključili tudi naše popise iz drugih grap v Julijskih Alpah in njihovem prigorju in opisali še dve novi asociaciji *Viola biflorae-Astrantietum carniolicae* in *Veronico urticifoliae-Violetum biflorae*, ki pa v Liščaku nimata svojih nahajališč.

Na podlagi v teh članku novo opisanih združb in podobnih združb v severnodinarskem in predalpskem delu Slovenije smo opisali tudi novo zvezo *Astrantio carniolicae-Paederotium luteae*, kamor obravnavane asociacije tudi uvrščamo. Njene diagnostične vrste delimo na fitogeografsko-ekološke in ekološke. Prve so *Astrantia carniolica*, *Paederota lutea* in *Primula carniolica*, v manjši meri tudi diagnostične vrste zvez *Physoplexido comosae-Saxifragion petraeae* in *Aremonio-Fagion* ter druge jugovzhodnoalpsko-severnodinarske vrste, ki se posamično pojavljajo v njihovih sestojih. Te jih zadostno razlikujejo od podobnih združb iz zveze *Cystopteridion*. Ekološke diagnostične vrste so *Aster bellidialstrum*, *Hydrogonium croceum* (*Barbula crocea*), *Carex brachystachys*, *Cystopteris fragilis*, *Asplenium viride*, *Eucladium verticillatum*, *Fissidens dubius*, *Hymenostylium recurvirostrum*, *Apopellia endiviifolia* (*Pellia endiviifolia*), *Palustriella commutata*, *Marchantia quadrata* (*Preissia quadrata*), *Pinguicula alpina*, *Orthothecium rufescens*, *Saxifraga aizoides*, *Tofieldia calyculata*, *Valeriana saxatilis*, *V. tripteris* in *Viola biflora*. Naštete so sicer značilnice različnih zvez in razredov, a proučene združbe razlikujejo od združb bolj suhega skalovja iz zveze *Physoplexido comosae-Saxifragion petraeae*.

Posebnost grape Liščaka je tudi visoko steblikovje s srebrenko (*Lunaria rediviva*) in volecvetno mrtvo koprivo (*Lamium orvala*) na koluviju (grušču) ob dnu strmih pobočij. Takšne sestoji na podlagi popisov tudi iz drugih grap uvrščamo v novo asociacijo *Lamio orvalae-Lunarietum redivivae*. Ena izmed njenih značilnic je tudi črni bezeg (*Sambucus nigra*), ki je ponekod na podobnih rastiščih v naslednji sukcesijski stopnji prevladujoča vrsta zgornje plasti v sestojih asociacije *Lamio orvalae-Sambucetum nigrae*. Takšne sestoji poznajo v sosednji deželi Furlaniji Julijski krajini, s fitocenološko tabelo smo jih dokumentirali tudi v Sloveniji in opisali novo subasociacijo s srebrenko (*lunarietum redivivae*).

Asociacije *Viola biflorae-Astrantietum carniolicae*, *Calamagrostio variae-Asteretum bellidiasetri*, *Veronico urticifoliae-Violetum biflorae*, *Lamio orvalae-Lunarietum redivivae* in *Lamio orvalae-Sambucetum nigrae* so novost v rastju Triglavskega narodnega parka, saj smo pri njihovem opisu upoštevali tudi popise iz Trente, Loške Koritnice, Možnice, Zadlaščice, Voj, Pokljuške soteske, Kota in Vintgarja.

V tem članku opisane združbe skalnih razpok so dijo v Natura 2000 habitatna tipa 8210 Karbonatna skalnata pobočja z vegetacijo skalnih razpok in 7220* Lehnjakotvorni izviri (*Cratoneurion*), visoko steblikovje s srebrenko pa v Natura 2000 habitatni tip 6430 Nižinske in montanske do alpinske hidrofilne združbe z visokim steblikovjem.

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Figure 14: Kneška Grapa gorge at Velike Luti
Slika 14: Kneška grapa pri koritih Velike Luti



Figure 15: The Liščak gorge (Kneška Grapa gorge, Bača Valley).
Slika 15: Liščak (Kneška grapa, Baška dolina).



Figure 16: Researched sites in the Liščak gorge: moist rocks, debris and talus.
Slika 16: Proučena rastišča v grapi Liščaka, vlažno skalovje, pobočni grušč in vršaji.



Figure 17 a: Stand of the association *Astrantio carniolicae-Pinguiculetum alpinae* in the Liščak gorge.
Slika 17 a: Sestoj asociacije *Astrantio carniolicae-Pinguiculetum alpinae* v grapi Liščak.



Figure 17 b: Stand of the association *Astrantio carniolicae-Pinguiculetum alpinae* in the Kneška Grapa gorge (Velike Luti).
Slika 17 b: Sestoj asociacije *Astrantio carniolicae-Pinguiculetum alpinae* v Kneški grapi (Velike Luti).



Figure 18: Stand of the association *Violo biflorae-Astrantietum carniolicae*, Govci above the Trebuša Valley.
Slika 18: Sestoj asociacije *Violo biflorae-Astrantietum carniolicae*, Govci nad dolino Trebuše.



Figure 19: Stand of the variant *Palustriello commutati-Astrantietum carniolicae* var. *Carex mucronata*, Velike Luti in the Kneška Grapa gorge.

Slika 19: Sestoj variante *Palustriello commutati-Astrantietum carniolicae* var. *Carex mucronata*, Velike Luti v Kneški grapi.



Figure 20: Stand of the association *Palustriello commutati-Astrantietum carniolicae* in the Liščak gorge.

Slika 20: Sestoj asociacije *Palustriello commutati-Astrantietum carniolicae* v grapi Liščaka.



Figure 21: Stand of the association *Palustriello-Veronicetum urticifoliae* in the Liščak gorge.
Slika 21: Sestoj asociacije *Palustriello-Veronicetum urticifoliae* v grapi Liščaka.



Figure 22: Stand of the association *Cratoneuretum commutati s. lat.* in the Liščak gorge.
Slika 22: Sestoj asociacije *Cratoneuretum commutati s. lat.* v grapi Liščaka.



Figure 23: Stand of the subassociation *Campanulo cespitosae-Saxifragetum aizoidis achnatheretosum calamagrostis*, Luknova Grapa gorge (Za Jamo).

Slika 23: Sestoj subasociacije *Campanulo cespitosae-Saxifragetum aizoidis achnatheretosum calamagrostis*, Luknova grapa (Za Jamo).



Figure 24: Stand of the association *Veronico urticifoliae-Saxifragetum cuneifolii* in the Liščak gorge.

Slika 24: Sestoj asociacije *Veronico urticifoliae-Saxifragetum cuneifolii* v grapi Liščaka.



Figure 25: Stand of the association *Calamagrostio variaie-Asteretum bellidiastrii* in the Kneška Grapa gorge.
Slika 25: Sestoj asociacije *Calamagrostio variaie-Asteretum bellidiastrii* v Kneški grapi.



Figure 26: Stand of the association *Calamagrostio variaie-Asteretum bellidiastrii* in the Vintgar gorge.
Slika 26: Sestoj asociacije *Calamagrostio variaie-Asteretum bellidiastrii* v Vintgarju.



Figure 27: Strand of the association *Veronico urticifoliae-Violetum biflorae* in the Vintgar Gorge.
Slika 27: Sestoj asociacije *Veronico urticifoliae-Violetum biflorae* v Vintgarju.



Figure 28: Stand of the syntaxon *Seslerio caeruleae-Sedetum albi* nom. prov. in the spring area of the Liščak gorge.
Slika 28: Sestoj sintaksona *Seslerio caeruleae-Sedetum albi* v povirju Liščaka.



Figure 29 a: Stand of the association *Lamio orvalae-Lunarietum redivivae* in the Vintgar gorge.
Slika 29 a: Sestoj asociacije *Lamio orvalae-Lunarietum redivivae* v Vintgarju.



Figure 29 b: Stand of the association *Lamio orvalae-Lunarietum redivivae* in the Liščak gorge.
Slika 29 b: Sestoj asociacije *Lamio orvalae-Lunarietum redivivae* v grapi Liščaka.



Figure 30: Stand of the association *Lamio orvalae-Sambucetum nigrae* in the Avšček gorge.
Slika 30: Sestoj asociacije *Lamio orvalae-Sambucetum nigrae* v grapi Avščka.

Foto (Photo): I. Dakskobler

Table 1 (Preglednica 1): *Astrantio carniolicae-Pinguiculetum alpinae* var. *Calamagrostis varia*

	1	2	3	4	5	6	7	8	9	19	11	12	13	14		
Successive number of relevé (Zaporedna številka popisa)	282276	282259	282261	282266	282273	285277	285278	285279	285279	285282	287163	287215	285358	287208		
Database number of relevé (Delovna številka popisa)	590	560	565	625	620	325	335	330	330	335	455	300	300	320		
Elevation in m (Nadmorska višina v m)	SE	W	W	W	S	SW	SWW	SW	SW	SW	SW	S	W	NE		
Aspect (Lega)	90	90	90	90	80	90	90	90	90	90	90	90	90	80		
Slope in degrees (Nagib v stopinjah)	LMCh	LMCh	LMCh	DCh	DCh	DCh	DCh	DCh	DCh	DCh	LMCh	LMCh	DCh	DCh		
Parent material (Matična podlaga)	Li	Li	Li	Li	Li	Li	Li	Li	Li	Li	Li	Li	Li	Li		
Soil (Tla)	100	100	100	100	100	100	100	100	100	100	100	100	100	100		
Stoniness in % (Kamnitost v %)	30	30	30	40	30	30	30	40	35	40	40	50	25	40		
Cover of herb layer in % (Zastiranje zeliščne plasti v %):	40	50	70	60	60	40	40	30	30	60	50	30	20	30		
Cover of moss layer in % (Zastiranje mahovne plasti v %):	9	21	18	19	24	15	12	10	15	18	15	15	10	22		
Number of species (Število vrst)	10	5	10	10	10	10	20	10	10	5	10	10	10	10		
Relevé area (Velikost popisne ploskve)																
Date of taking relevé (Datum popisa)	Liščak-Zališčar	Liščak-Luknova	Liščak	Liščak	Liščak	Velike Luti	Velike Luti	Velike Luti	Velike Luti	Velike Luti	Liščak-Sopot	Knezica-Mlinar	Velike Luti	Velike Luti		
Locality (Nahajališče)	5118090	5118074	5118055	5118286	5118274	5116536	5116758	5116573	5116584	5116789	5117686	5116408	5116428	5116795		
Quadrant (Kvadrant)	9749/3	9749/3	9749/3	9749/3	9749/3	9849/1	9849/1	9849/1	9849/1	9849/1	9849/1	9849/1	9849/1	9849/1		
Coordinate GK Y (D-48)	411238	411553	411565	411626	411589	411053	410876	411029	411011	410846	411359	411065	411058	410734		
Coordinate GK X (D-48)	m	m														
Diagnostic species of the association (Diagnostične vrste asociacije)	E1	1	1	1	+	2	3	3	3	3	3	2	2	2		
AP <i>Pinguicula alpina</i>	E0	+	2	3	2	2	3	1	2	3	3	1	1	1		
AP <i>Hymenostylium recurvirostrum</i>	E0	3	2	2	4	3	2	2	2	2	2	3	1	2		
AP <i>Palustriella commutata</i>	E1	3	.	.	+	1	1	.	r	.	3	3	+	1		
AP <i>Astrantia carniolica</i>	TR	.	.	.	.	1	r	+	r	.	.	.	.	r
TR <i>Petasites paradoxus</i>	AP	.	.	.	.	.	.	.	.	.	.	.	.	.
AP <i>Astrantio carniolicae-Paederotium luteae</i>	E1	.	1	1	+	+	+	+	r	.	1	1	1	1		
<i>Aster bellidiarum</i>	E0	1	1	1	1	.	.	1	.	+	+	.	.	+		
<i>Apollonia endiviifolia</i> (<i>Pellia endiviifolia</i>)	E1	.	2	1	2	1	.	.	+	.	+	.	.	+		
<i>Carex brachystachys</i>	E0	.	1	+	.	.	.	.	+	.	.	.	1	2
<i>Orthothecium rufescens</i>	E0	+	.	.	.	.	1	.	+	+	1	.	.	.
<i>Eucladium verticillatum</i>	E1	.	.	.	.	.	+	.	.	+	.	1	.	.
<i>Tofieldia calyculata</i>	E1	.	.	.	.	.	+	.	.	+	.	.	.	.
<i>Valeriana tripteris</i>	E1	.	.	1	.	.	.	.	.	+	+	.	.	+
<i>Marchantia quadrata</i> (<i>Preissia quadrata</i>)	E0	.	.	.	.	.	.	.	.	+	.	.	.	.
<i>Fissidens dubius</i>	E0	.	.	.	.	.	.	.	.	+	.	.	.	+
<i>Jungermannia atrovirens</i>	E0	.	.	.	.	.	.	.	.	.	.	.	.	.
	Pr.														Fr.	

	1	2	3	4	5	6	7	8	9	19	11	12	13	14	Pr.	Fr.
Successive number of relevé (Zaporedna številka popisa)																
<i>Hydrogonium croceum</i> (<i>Barbula crocea</i>)	E0	.	.	.	.	.	.	.	.	1	.	.	.	1	2	14
<i>Saxifraga aizoides</i>	E1	+	.	.	.	.	.	.	.	.	.	.	.	.	1	7
<i>Valeriana saxatilis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	2	1	7
Differential species of the variant (Razlikovalnica variante)																
EP <i>Calamagrostis varia</i>	E1	+	1	2	2	+	.	.	r	1	.	+	+	+	12	86
PsSp <i>Physoplexido comosae-Saxifragion petraeae</i>																
<i>Campanula cespitosa</i>	E1	+	.	2	+	.	.	.	.	.	+	.	.	.	4	29
<i>Hieracium porrifolium</i>	E1	.	.	.	r	.	.	.	.	.	.	.	.	.	1	7
PC <i>Potentilletalia caulescentis</i>																
<i>Saxifraga crustata</i>	E1	.	r	.	.	.	.	.	.	.	.	.	.	.	1	7
<i>Asplenietea trichomanis</i>																
<i>Asplenium ruta-muraria</i>	E1	.	+	+	.	.	.	.	.	+	.	.	.	.	3	21
<i>Asplenium trichomanes</i>	E1	.	+	.	.	.	.	.	.	r	.	.	.	.	2	14
TR <i>Thlaspietea rotundifolii</i>																
<i>Hieracium bifidum</i>	E1	.	+	1	+	r	.	.	r	+	.	.	.	.	7	50
<i>Adenostyles glabra</i>	E1	.	+	1	+	.	.	.	.	.	1	.	.	.	4	29
MC <i>Montio-Cardaminetea</i>																
<i>Conocephalum conicum</i>	E0	.	.	.	1	.	.	.	.	.	.	.	.	+	2	14
<i>Aneura pinguis</i>	E0	.	.	.	.	.	.	.	+	.	.	.	.	.	1	7
CD <i>Caricetalia davallianae</i>																
<i>Campylophlyopsis calcarea</i> (<i>Campyllum calcarea</i>)	E0	.	.	+	.	.	.	.	.	.	.	.	.	.	1	7
<i>Campyllum stellatum</i>	E0	.	.	.	.	.	.	+	.	.	.	.	.	.	1	7
<i>Carex lepidoarpa</i>	E1	.	.	.	.	.	.	.	.	.	.	+	.	.	1	7
ES <i>Elyno-Seslerietea</i>																
<i>Sesleria caerulea</i>	E1	.	.	.	.	+	1	1	+	2	.	.	+	1	7	50
MA <i>Molinio-Arrhenatheretea</i>																
<i>Angelica sylvestris</i>	E1	.	.	.	.	r	.	.	.	.	.	.	.	.	2	14
BA <i>Betulo-Alnetea</i>																
<i>Salix appendiculata</i>	E2a	.	.	.	.	r	.	+	.	+	.	.	.	.	3	21
EA <i>Epilobietea angustifolii</i>																
<i>Eupatorium cannabinum</i>	E1	.	.	.	+	.	.	.	.	.	r	+	.	.	3	21
<i>Tussilago farfara</i>	E1	.	.	.	.	.	.	.	.	r	.	.	.	.	1	7
EP <i>Erico-Pinetea, Festuco-Brometea</i>																
<i>Molinia arundinacea</i>	E1	+	.	.	.	1	+	2	1	.	+	+	.	2	9	64
<i>Erica carnea</i>	E1	.	.	.	+	.	.	.	r	.	.	+	r	.	4	29
<i>Buphthalmum salicifolium</i>	E1	.	.	.	1	.	.	.	.	r	.	.	.	.	2	14
<i>Carex ornithopoda</i>	E1	.	+	.	.	.	.	.	.	+	.	.	.	.	2	14
<i>Cirsium erisithales</i>	E1	.	.	.	.	.	.	.	.	+	.	.	.	.	1	7
VP <i>Vaccinio-Piceetea</i>																
<i>Veronica urticifolia</i>	E1	.	.	+	.	.	.	.	.	.	.	.	.	.	2	14
<i>Aposeria foetida</i>	E1	.	.	.	.	.	.	.	.	.	+	.	.	.	1	7
<i>Gentiana asclepiadea</i>	E1	.	.	.	+	.	.	.	.	.	.	.	.	.	1	7
AF <i>Aremonio-Fagion, Erythronio-Carpinion</i>																
<i>Cyclamen purpurascens</i>	E1	.	.	.	+	.	.	.	.	.	.	.	.	.	1	7
<i>Primula vulgaris</i>	E1	.	.	.	+	.	.	.	.	.	.	.	.	.	1	7

Successive number of relevé (Zaporedna številka popisa)		1	2	3	4	5	6	7	8	9	19	11	12	13	14	Pr.	Fr.
TA	Tilio-Acerion																
	<i>Aruncus dioicus</i>	E1	.	.	.	.	.	.	.	.	.	+	.	.	.	1	7
FS	Fagetalia sylvaticae																
	<i>Galium laevigatum</i>	E1	.	+	.	+	.	.	.	.	.	+	.	+	1	6	43
	<i>Salvia glutinosa</i>	E1	.	+	+	+	.	.	.	.	.	.	.	.	.	4	29
	<i>Mycelis muralis</i>	E1	.	.	.	+	.	.	.	.	.	.	.	.	.	1	7
	<i>Fagus sylvatica</i>	E1	.	.	.	.	1	.	.	.	.	.	.	.	.	1	7
QP	Quercetalia pubescenti-petraeae																
	<i>Carex flacca</i>	E1	.	.	.	.	+	.	1	1	.	.	1	.	.	4	29
	<i>Ostrya carpinifolia</i>	E2a	.	+	.	.	.	.	.	.	.	.	.	.	.	1	7
QF	Quercus-Fagetea																
	<i>Hedera helix</i>	E1	.	.	+	+	.	.	.	.	.	.	.	.	.	2	14
	<i>Carex digitata</i>	E1	.	.	+	.	.	.	.	.	.	.	.	.	.	1	7
	<i>Clematis vitalba</i>	E1	.	.	.	.	.	.	.	.	.	.	+	.	.	1	7
ML	Mosses (Mahovi)																
	<i>Exerthea crispa</i> (<i>Neckera crispa</i>)	E0	.	.	.	1	.	.	.	.	.	.	.	.	.	1	7
	<i>Seligeria trifaria</i>	E0	.	.	.	.	.	.	+	.	.	.	.	.	.	1	7
	<i>Dichodontium pellucidum</i>	E0	.	.	.	.	.	.	.	.	.	.	.	.	1	1	7
	<i>Didymodon fallax</i>	E0	.	.	.	.	.	.	.	.	.	.	.	.	.	1	7
	<i>Tortella tortuosa</i>	E0	.	.	.	.	.	.	.	.	.	.	.	.	+	1	7

Legend - Legenda

L Limestone - apnenec

Ch Chert - roženec

D Dolomite - dolomit

Cl Claystone - glinavec

M Marlstone - laporovec

Li Lithosol - kamnišče

Pr. Presence (number of relevés in which the species is presented) - število popisov, v katerih se pojavlja vrsta

Fr. Frequency in % - frekvenca v %

Table 2 (Preglednica 2): *Viola biflora*-*Astrantiastrum carniolicum*

Successive number of relevé (Zaporedna številka popisa)	Database number of relevé (Delovna številka popisa)	Elevation in m (Nadmorska višina v m)	Aspect (Lega)	Slope in degrees (Nagib v stopinjah)	Parent material (Matična podlaga)	Soil (Tla)	Stoniness in % (Kamnitost v %)	Cover of herb layer in % (Zastiranje zeliščne plasti v %):	Cover of moss layer in % (Zastiranje mahovne plasti v %):	Number of species (Število vrst)	Relevé area (Velikost popisne ploskve)	Date of taking relevé (Datum popisa)	Locality (Nahajališče)	Quadrant (Kvadrant)	Coordinate GK Y (D-48)	Coordinate GK X (D-48)	Diagnostic species of the association (Diagnostične vrste asociacije)	Pr.	Fr.
1	257807	880	NW	80	L	Li	100	30	16	16	m ²	8/11/2015	Zabci	9648/3	400276	5131801	<i>Astrantia carniolica</i>	2	18
2	269661	880	NW	80	L	Li	100	30	16	16		6/21/2017	Trenta-Beladovec	9648/2	404242	5136645	<i>Viola biflora</i>	3	100
3	273173	1175	NW	80	L	Li	100	30	16	16		9/19/2018	Kot-Kotarica	9549/3	414666	5140324	<i>Carex brachystachyis</i>	2	100
4	282738	565	NW	80	D	Li	100	30	16	16		6/22/2020	Vintgar	9650/2	430243	5139553	<i>Adenostyles glabra</i>	2	78
5	282739	565	NW	80	D	Li	100	30	16	16		6/22/2020	Vintgar	9650/2	430248	5139570	<i>Paederota lutea</i>	3	67
6	258917	985	N	80	D	Li	100	40	11	24		7/3/2015	Trenta-Zadnja	9648/2	407689	5137099	<i>Heliosperma pusillum</i>	3	39
7	269646	1130	N	85	L	Li	100	40	11	24		6/21/2017	Trenta-Lepoč	9648/2	404708	5135878	Differential species of lower units (Razlikovalnice nižjih enot)	1	7
8	273153	1130	NW	80	DL	Li	100	25	27	28		9/21/2018	Zadnja-Kanjavec	9648/2	408369	5137042	<i>Palustritella commutata</i>	+	38
9	274072	1285	N	80	D	Li	100	40	10	10		7/27/2018	Loška Koritnica	9548/3	397748	5143135	<i>Hymenostylium recurvirostrum</i>	+	38
10	274078	1300	N	95	D	Li	100	20	32	32		7/27/2018	Loška Koritnica	9548/3	397754	5143115	<i>Rhodothamnus chamaecistus</i>	+	33
11	278144	1350	NW	90	D	Li	100	40	19	23		6/14/2019	Trenta-Zapok	9648/1	399390	5138583		+	6
12	286378	1200	NE	70	L	Li	100	30	19	27		7/26/2021	Komna-Pekel	9748/2	407214	5127432		+	6
13	269643	925	N	70	L	Li	100	40	27	23		6/21/2017	Trenta-Beladovec	9648/2	404237	5136661		+	6
14	269647	1130	N	50	L	Li	100	30	14	22		6/21/2017	Trenta-Lepoč	9648/2	404699	5135876		+	6
15	277320	1182	NW	100	D	Li	100	30	14	22		7/10/2019	Strmec-Man-gart	9547/4	392642	5143224		+	6
16	288035	540	N	80	D	Li	100	30	14	22		7/22/2021	Gorenja Trebuša Govci	9949/3	410883	5097256		+	6
17	268929	550	NEE	85	D	Li	100	25	22	22		10/9/2017	Otuška-Prilina	9949/2	420057	5103034		+	6
18	277777	697		95	D	Li	100	30	24	24		6/24/2019	Voje izvir Kropce	9649/3	414612	5130398		+	6

		Successive number of relevé (Zaporedna številka popisa)																		Fr.	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Pr.	
AP	<i>Marchantia quadrata</i> (<i>Preissia quadrata</i>)								+	+	+	+								4	22
AP	<i>Asrantiacarniolicae-Paederotiofluteae</i>																				
	<i>Orthothecium rufescens</i>																				
	<i>Asplenium viride</i>	E0	1	2	2	1	.	2	+	1	+	+	1	1	1	2	.	+	16	89	
	<i>Aster bellidiastrum</i>	E1	r	.	+	1	.	+	+	+	+	1	.	+	1	1	1	1	13	72	
	<i>Fissidens dubius</i>	E1	.	+	.	.	.	+	1	+	.	.	+	1	1	1	+	+	11	61	
	<i>Valeriana saxatilis</i>	E0	.	.	.	.	.	1	.	+	+	+	1	.	.	+	+	+	9	50
	<i>Cystopteris regia</i>	E1	+	.	.	.	.	+	1	1	+	1	.	.	1	1	.	.	8	44
	<i>Cystopteris fragilis</i>	E1	.	.	.	.	.	r	.	1	+	+	.	.	.	.	.	+	6	33
	<i>Pinguicula alpina</i>	E1	r	.	.	1	+	.	.	.	+	+	.	.	.	+	.	.	6	33	
	<i>Valeriana tripteris</i>	E1	r	.	.	.	.	+	.	.	.	+	.	.	.	+	.	.	4	22
	<i>Tofieldia calyculata</i>	E1	.	.	.	.	.	.	.	.	.	.	.	1	.	.	1	.	3	17
	<i>Hydrogonium croceum</i> (<i>Barbula crocea</i>)	E1	.	.	.	.	.	r	.	.	.	.	.	.	.	1	.	.	3	17
	<i>Apopellia endiviifolia</i> (<i>Pellia endiviifolia</i>)	E0	.	.	.	.	.	.	.	+	.	.	.	.	.	+	.	.	3	17
	<i>Cyrtomium hymenophylloides</i>	E0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	2	11
	<i>Physoplexido comosae-Saxifragion petraeae</i>																				
	<i>Campanula zoysii</i>	E1	.	.	.	.	.	.	+	.	.	.	.	.	r	.	.	.	3	17
	<i>Campanula carnica</i>	E1	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	2	11
	<i>Hieracium porrifolium</i>	E1	.	.	.	.	.	r	.	.	.	.	.	.	.	.	.	.	1	6
	<i>Campanula cespitosa</i>	E1	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	1	6
	<i>Phyteuma scheuchzeri</i> subsp. <i>columnae</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	1	6
PC	<i>Potentilletalia caulescentis</i>																				
	<i>Campanula cochleariifolia</i>	E1	.	.	1	.	.	.	+	.	.	1	.	+	1	.	.	.	6	33	
	<i>Arabis stellulata</i>	E1	.	.	.	.	.	.	.	+	+	.	.	.	+	.	.	.	4	22
	<i>Primula auricula</i>	E1	.	+	.	.	.	r	.	r	.	.	.	.	.	.	.	.	4	22
	<i>Potentilla caulescens</i>	E1	+	.	.	.	.	.	.	.	r	.	.	.	.	.	.	.	2	11
	<i>Hieracium humile</i>	E1	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	1	6
	<i>Potentilla clusiana</i>	E1	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	1	6
AT	<i>Asplenietea trichomanis</i>																				
	<i>Asplenium ruta-muraria</i>	E1	.	.	.	.	.	.	.	+	+	.	.	.	.	.	+	+	5	28
	<i>Asplenium trichomanes</i>	E1	.	+	.	.	.	.	.	.	.	.	.	.	.	.	1	+	3	17
	<i>Moehringia muscosa</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	6
	<i>Kernera saxatilis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	.	1	6
AC	<i>Arabidetalia caeruleae</i>																				
	<i>Soldanella minima</i>	E1	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	3	17
TR	<i>Thlaspietea rotundifolii</i>																				
	<i>Hieracium bifidum</i>	E1	+	.	.	.	+	.	.	+	.	.	r	4	22
	<i>Gymnocarpium robertianum</i>	E1	.	.	.	.	.	.	+	.	.	1	.	.	.	.	.	+	4	22
	<i>Gypsophila repens</i>	E1	.	.	.	.	.	.	+	r	+	.	.	.	.	.	.	.	3	17
	<i>Festuca nitida</i>	E1	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	2	11
	<i>Cystopteris montana</i>	E1	.	.	.	.	.	r	.	.	.	.	1	.	.	.	.	.	2	11
	<i>Saxifraga caesia</i>	E1	.	.	.	.	.	.	.	r	.	.	.	.	.	+	.	.	2	11
	<i>Arabis alpina</i>	E1	.	.	.	.	.	r	.	.	.	.	.	.	.	.	.	.	1	6
	<i>Athamanta cretensis</i>	E1	.	.	.	.	.	.	r	.	.	.	.	.	.	.	.	.	1	6
	<i>Biscutella laevigata</i>	E1	.	.	.	.	.	.	.	r	.	.	.	.	.	.	.	.	1	6

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Fr.	
Successive number of relevé (Zaporedna številka popisa)																				
<i>Cerastium carinthiacum</i>	E1	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	1 6
<i>Trisetum argenteum</i>	E1	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	1 6
<i>Petasites paradoxus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	1 6
MC Montio-Cardaminetea																				
<i>Conocephalum conicum</i>	E0	+	1	.	.	.	.	.	.	.	.	.	.	.	.	1	3	1	8	44
<i>Cratoneuron filicinum</i>	E0	.	.	+	.	1	.	.	.	.	.	.	.	.	.	.	.	.	2	11
<i>Pychoxostomum pseudotriquetrum</i> (<i>Bryum pseudotriquetrum</i>)	E0	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1 6
<i>Oxyrrhynchium schleicheri</i>	E0	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	1 6
<i>Cololejeunea calcarea</i>	E0	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	1 6
CD Caricetalia davallianae																				
<i>Campylopus stellatum</i>	E0	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	1 6
ES Elyno-Seslerietea																				
<i>Sesleria caerulea</i>	E1	1	1	+	.	.	.	1	r	.	+	.	.	1	.	.	.	.	.	7 39
<i>Carex firma</i>	E1	.	.	+	.	.	.	+	r	r	r	.	.	.	.	.	.	.	.	5 28
<i>Laserpitium peucedanoides</i>	E1	.	+	.	.	.	.	r	.	.	.	.	+	1	.	.	.	.	.	4 22
<i>Carex ferruginea</i>	E1	.	.	+	.	.	+	.	r	.	.	.	.	.	.	.	.	.	.	3 17
<i>Achillea atrata</i>	E1	.	.	.	.	.	.	.	r	.	.	.	.	.	.	.	.	.	.	1 6
<i>Phyteuma orbiculare</i>	E1	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1 6
<i>Ranunculus hybridus</i>	E1	.	.	.	.	.	.	r	.	.	.	.	.	.	.	.	.	.	.	1 6
<i>Globularia cordifolia</i>	E1	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	1 6
<i>Selaginella selaginoides</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1 6
BA Betulo-Alnetea																				
<i>Salix appendiculata</i>	E2a	+	.	.	.	.	.	r	.	.	.	.	.	.	.	.	.	.	.	2 11
MuA Mulgedio-Aconitetea																				
<i>Saxifraga rotundifolia</i>	E1	.	.	.	+	.	.	+	.	.	.	.	.	.	.	.	.	.	.	3 17
<i>Aconitum lycoctonum</i> subsp. <i>ranunculifolium</i>	E1	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	1 6
<i>Chaerophyllum hirsutum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	1 6
<i>Aconitum degenii</i> subsp. <i>paniculatum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	1 6	
EP Erico-Pinetea																				
<i>Calamagrostis varia</i>	E1	1	+	.	+	.	+	+	+	+	r	.	1	+	.	1	r	.	12 67	
<i>Rhododendron hirsutum</i>	E1	.	.	+	.	.	.	.	+	.	+	.	.	.	.	.	.	.	.	4 22
<i>Erica carnea</i>	E1	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	1 6
<i>Asperula aristata</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1 6
VP Vaccinio-Piceetea																				
<i>Veronica urticifolia</i>	E1	.	+	.	1	1	.	.	.	.	.	.	1	+	.	.	+	.	.	7 39
<i>Saxifraga cuneifolia</i>	E1	.	.	.	.	.	.	.	.	.	+	.	.	+	.	.	.	.	.	3 17
<i>Oxalis acetosella</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	2 11
<i>Homogyne sylvestris</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	1 6	
AF Arenonio-Fagion																				
<i>Cardamine trifolia</i>	E1	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1 6
<i>Anemone trifolia</i>	E1	.	.	.	.	.	.	.	.	.	r	.	.	.	.	.	.	.	.	1 6
<i>Cyclamen purpurascens</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1 6
TA Tilio-Acerion																				
<i>Geranium robertianum</i>	E1	.	.	.	+	.	.	.	.	.	.	.	.	+	.	.	.	.	.	3 17
<i>Phyllitis scolopendrium</i>	E1	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2 11

Successive number of relevé (Zaporedna številka popisa)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Pr.	Fr.	
E1	+	2	11
<i>Aruncus dioicus</i>																					
FS <i>Fagetalia sylvaticae</i>																					
<i>Galeobdolon flavidum</i>													+	1	.	1	+	.	5	28	
<i>Fagus sylvatica</i>										r	.	.	.	.	.	.	.	.	1	6
<i>Myrcelis muralis</i>										r	.	.	1	6	
<i>Galium laevigatum</i>										r	.	1	6	
QF <i>Quercus-Fagetea</i>																					
<i>Carex digitata</i>					+	+	3	17	
ML <i>Moses (Mahovi)</i>																					
<i>Ctenidium molluscum</i>							1	.	.	+	1	.	2	2	.	.	+	.	6	33	
<i>Tortella tortuosa</i>								+	1	+	.	.	.	.	.	.	.	.	4	22
<i>Plagiommium undulatum</i>													+	2	11	
<i>Pedinophyllum interruptum</i>												+	2	11	
<i>Mnium thomsonii</i>												.	1	.	.	.	.	.	2	11
<i>Plagiochila porelloides</i>												.	+	2	11	
<i>Exerthea crispa (Neckera crispa)</i>												3	1	2	11
<i>Pohlia wahtenbergii</i>			1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	6
<i>Lophozia sp.</i>												1	6	
<i>Bryum sp.</i>												1	6	
<i>Metzgeria conjugata</i>												1	6	
<i>Serpoteskea confervoides (Amblystegium confervoides)</i>												1	6	
<i>Campylophyllum halleri</i>												.	1	.	.	.	.	.	1	6
<i>Lophozia obtusa</i>												.	1	.	.	.	.	.	1	6
<i>Amblystegium serpens</i>												.	+	1	6	
<i>Didymodon acutus</i>												.	+	1	6	
<i>Myurella julacea</i>												.	+	1	6	
<i>Thamnobryum alopecurum</i>												1	6	

Legend - Legenda

L Limestone - apnenec

D Dolomite - dolomit

Li Lithosol - kamnišče

Pr. Presence (number of relevés in which the species is presented) - število popisov, v katerih se pojavlja vrsta

Fr. Frequency in % - frekvenca v %

Table 3 (Preglednica 3): *Palustriello commutati-Astrantietum carniolicae*

Successive number of relevé (Zaporedna številka popisa)	Database number of relevé (Delovna številka popisa)	Elevation in m (Nadmorska višina v m)	Aspect (Lega)	Slope in degrees (Nagib v stopinjah)	Parent material (Matična podlaga)	Soil (Tla)	Stoniness in % (Kamnitost v %)	Cover of herb layer in % (Zastiranje zeliščne plasti v %)	Cover of moss layer in % (Zastiranje mahovne plasti v %)	Number of species (Število vrst)	Relevé area (Velikost popisne ploskve)	Date of taking relevé (Datum popisa)	Locality (Nahajališče)	Quadrant (Kvadrant)	Coordinate GK Y (D-48)	Coordinate GK X (D-48)	Diagnostic species of the association (Diagnostične vrste asociacije)	Diagnostic species of lower units (Diagnostične vrste nižjih enot)	Fr.	
287209	287210	320	N	85	DCh	Li	100	30	10	32	10	6/18/2021	Veliče Lutti	Veliče Lutti	410755	410755	5116796	5116801	9849/1	2
287210	287211	320	N	85	DCh	Li	100	30	10	32	10	6/18/2021	Veliče Lutti	Veliče Lutti	410761	410761	5116801	5116817	9849/1	2
287211	287213	320	N	80	DCh	Li	100	30	10	32	10	6/18/2021	Veliče Lutti	Veliče Lutti	410786	410786	5116820	5116820	9849/1	1
287154	275015	350	N	80	L.MCh	Li	100	30	10	32	10	7/1/2018	Liščak	Liščak	410897	410897	5117034	5117034	9849/1	3
287207	287216	350	NW	80	L.MCh	Li	100	30	10	32	10	6/18/2021	Liščak	Liščak	410888	410888	5117016	5117016	9849/1	3
287168	287216	450	SE	90	L.MCh	Li	100	30	10	32	10	8/11/2021	Liščak-Sopot	Liščak-Sopot	411283	411283	5117644	5117644	9849/1	1
287165	287161	450	NW	90	L.MCh	Li	100	30	10	32	10	8/11/2021	Liščak	Liščak	411350	411350	5117654	5117654	9849/1	2
287162	287162	450	SE	80	L.MCh	Li	100	30	10	32	10	8/11/2021	Liščak-Sopot	Liščak-Sopot	411306	411306	5117650	5117650	9849/1	1
278123	281764	400	NW	66	L.MCh	Li	100	35	81	41	20	6/26/2019	Liščak-Drsela	Liščak-Drsela	411130	411130	5117352	5117352	9849/1	3
281770	281768	750	SW	70	L.MCh	Li	100	60	40	30	40	6/24/2020	Liščak-Sopot	Liščak-Sopot	411706	411706	5118602	5118602	9749/3	1
281772	281770	750	SW	70	L.MCh	Li	100	60	40	30	40	6/24/2020	Liščak-Sopot	Liščak-Sopot	411718	411718	5118620	5118620	9749/3	1
282277	590	785	S	88	L.MCh	Li	100	30	60	60	50	6/24/2020	Liščak-Sopot	Liščak-Sopot	411716	411716	5118648	5118648	9749/3	+
													Liščak-Zaljščar	Liščak-Sopot	411241	411241	5118083	5118083	9749/3	2
													Liščak-Zaljščar	Liščak-Sopot	411241	411241	5118083	5118083	9749/3	2
													Liščak-Zaljščar	Liščak-Sopot	411241	411241	5118083	5118083	9749/3	18
													Liščak-Zaljščar	Liščak-Sopot	411241	411241	5118083	5118083	9749/3	100
													Liščak-Zaljščar	Liščak-Sopot	411241	411241	5118083	5118083	9749/3	15
													Liščak-Zaljščar	Liščak-Sopot	411241	411241	5118083	5118083	9749/3	83
													Liščak-Zaljščar	Liščak-Sopot	411241	411241	5118083	5118083	9749/3	14
													Liščak-Zaljščar	Liščak-Sopot	411241	411241	5118083	5118083	9749/3	44
													Liščak-Zaljščar	Liščak-Sopot	411241	411241	5118083	5118083	9749/3	28
													Liščak-Zaljščar	Liščak-Sopot	411241	411241	5118083	5118083	9749/3	33
													Liščak-Zaljščar	Liščak-Sopot	411241	411241	5118083	5118083	9749/3	22
													Liščak-Zaljščar	Liščak-Sopot	411241	411241	5118083	5118083	9749/3	4
													Liščak-Zaljščar	Liščak-Sopot	411241	411241	5118083	5118083	9749/3	22

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Fr.	Pr.	
Successive number of relevé (Zaporedna številka popisa)																					
AP	Astrantio carnioicae-Paederotium luteae																				
	E0	1	.	.	.	2	.	1	3	1	1	3	3	.	1	1	2	1	12	67	
	E1	.	+	+	.	+	+	.	+	+	+	.	+	+	.	+	.	.	11	61	
	E0	1	+	.	.	1	.	1	1	1	1	+	.	1	.	.	.	1	10	56	
	E0	+	1	.	+	.	+	.	1	1	1	.	1	+	.	.	.	.	9	50
	E1	1	+	+	.	.	.	.	+	+	.	.	.	.	.	.	.	.	5	28
	E0	1	.	.	.	.	1	1	+	.	.	.	+	.	.	.	.	.	5	28
	E0	1	+	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	4	22
	E1	+	.	+	.	.	.	.	.	+	.	.	.	.	.	.	.	.	3	17
	E1	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	17
	E1	.	.	.	.	.	.	.	+	2	.	.	+	.	.	.	.	.	3	17
	E1	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	2	11
	E0	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	1	5
PssP	Physoplexido comosae-Saxifragion petraeae																				
	<i>Marchantia quadrata (Preissia quadrata)</i>																				
	E1	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	1	6
	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	6
	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	6
AT	Asplenietea trichomanis																				
	E1	.	.	.	.	.	+	+	.	.	+	.	+	.	.	.	.	.	5	28
	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	6
	E1	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	1	6
	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	6
TR	Thlaspietea rotundifolii																				
	E1	.	.	.	.	.	.	+	.	1	+	2	.	3	1	3	2	.	8	44
	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	17
	E1	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	6
	E1	.	.	.	r	.	.	.	.	.	.	.	.	.	.	.	.	.	1	6
	E1	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	1	6
	E1	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	1	6
MC	Montio-Cardaminetea																				
	E0	+	.	.	.	.	1	1	1	2	+	.	+	1	1	.	.	4	10	56
	E0	.	.	.	.	.	.	+	.	.	.	.	+	+	.	.	.	.	4	22
	E0	+	.	+	.	.	.	.	.	.	.	.	.	3	.	.	.	.	3	17
	E0	+	.	.	.	.	.	.	+	.	.	.	.	+	.	.	.	.	3	17
	E0	+	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	2	11
	E0	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	1	6
	E0	.	.	.	.	.	2	.	.	.	.	.	.	.	.	.	.	.	1	6
	E0	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	1	6
CD	Caricetalia davallianae																				
	E0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	6
ES	Elyno-Seslerietea																				
	E1	1	+	+	.	.	.	.	.	1	.	.	.	.	.	+	.	.	6	33
	E1	r	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	11
MA	Molinio-Arrhenatheretea																				
	E1	r	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	3	17

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Fr.	Pr.		
Successive number of relevé (Zaporedna številka popisa)																						
<i>Crepis paludosa</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	17
<i>Caltha palustris</i>	E1	.	.	.	.	.	.	.	.	r	.	.	.	.	.	.	.	.	.	.	1	6
BA Betulo-Alnetea																						
<i>Salix appendiculata</i>	E2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	6
MuA Mulgedio-Aconitetea																						
<i>Aconitum angustifolium</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	6
<i>Chaerophyllum hirsutum</i>	E1	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	6
<i>Senecio ovatus</i>	E1	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	1	6
EA Epilobietea angustifolii, Trifolio-Geranietea																						
<i>Eupatorium cannabinum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	1	+	+	+	.	.	.	4	22
<i>Verbascum lanatum</i>	E1	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	1	6
<i>Solanum dulcamara</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	1	6
EP Erico-Pinetea																						
<i>Buphthalmum salicifolium</i>	E1	.	.	.	.	.	.	.	.	r	.	.	.	.	.	.	.	.	.	.	3	17
<i>Cirsium erisithales</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	r	.	.	.	.	.	.	1	6
VP Vaccinio-Piceetea																						
<i>Veronica urticifolia</i>	E1	.	.	.	.	.	.	.	1	+	.	.	.	1	.	+	.	.	.	.	11	61
<i>Gentiana asclepiadea</i>	E1	r	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	17
<i>Homogyne sylvestris</i>	E1	.	.	.	.	r	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	6
<i>Aposperis foetida</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	6
<i>Saxifraga cuneifolia</i>	E1	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	1	6
AF Arenonio-Fagion, Erythronio-Carpinion																						
<i>Cardamine trifolia</i>	E1	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	2	11
<i>Anemone trifolia</i>	E1	r	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	6
<i>Lamium orvala</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	6
TA Tilio-Acerion																						
<i>Aruncus dioicus</i>	E1	.	.	.	.	.	.	.	.	+	.	.	1	.	.	.	.	.	.	.	5	28
<i>Geranium robertianum</i>	E1	.	.	.	.	.	.	.	+	.	.	.	.	+	.	.	.	.	.	.	3	17
<i>Phyllitis scolopendrium</i>	E1	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	2	11
<i>Ulmus glabra</i>	E1	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	2	11
<i>Polystichum aculeatum</i>	E1	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	2	11
<i>Acer pseudoplatanus</i>	E1	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	1	6
AI Alnion incanae																						
<i>Knautia drymeia</i> subsp. <i>intermedia</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	11
<i>Cardamine impatiens</i>														+	.	.	.	.	.	.	1	6
FS Fagetalia sylvaticae																						
<i>Galium laevigatum</i>	E1	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	8	44
<i>Galeobdolon flavidum</i>	E1	.	+	.	.	.	1	+	.	.	.	1	+	.	.	.	.	.	.	.	7	39
<i>Brachypodium sylvaticum</i>	E1	.	.	.	.	.	.	.	.	.	.	1	+	.	.	.	.	.	.	.	3	17
<i>Petasites albus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	11
<i>Mycelis muralis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	2	11
<i>Fraxinus excelsior</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	6
<i>Dryopteris filix-mas</i>	E1	.	.	.	.	.	r	.	.	.	.	.	.	.	.	.	.	.	.	.	1	6
<i>Salvia glutinosa</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	6
QP Quercetalia pubescenti-petraeae																						
<i>Carex flacca</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	2	11

Successive number of relevé (Zaporedna številka popisa)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Pr.	Fr.	
QF Quercus-Fagetea																					
<i>Hedera helix</i>	E1	.	.	.	.	r	.	+	.	.	.	.	.	.	.	.	.	.	.	2	11
<i>Carex digitata</i>	E1	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	2	11
<i>Potentilla erecta</i>	E1	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	6
ML Mosses (Mahovi)																					
<i>Plagiomnium rostratum</i>	E0	+	.	.	.	+	.	+	.	.	.	.	.	.	.	.	.	.	.	3	17
<i>Hypohyllum luridum</i>	E0	+	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	11
<i>Mnium marginatum</i>	E0	.	.	.	.	+	.	+	.	.	.	.	.	.	.	.	.	.	.	2	11
<i>Jungermannia atrovirens</i>	E0	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	6
<i>Lophozia</i> sp.	E0	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	6
<i>Dichodontium pellucidum</i>	E0	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	6
<i>Trichostomum crispulum</i>	E0	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	6
<i>Chionoloma tenuirostre</i> (<i>Oxystegus tenuirostre</i>)	E0	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	6
<i>Microlejeunea ulicina</i>	E0	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	6
<i>Alleniella complanata</i> (<i>Neckera complanata</i>)	E0	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	1	6
<i>Ctenidium molluscum</i>	E0	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	1	6
<i>Plagiochila porrelloides</i>	E0	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	1	6

Legend - Legenda

- L Limestone - apnenec
- Ch Chert - roženec
- D Dolomite - dolomit
- Cl Claystone - glinavec
- M Marlstone - laporovec
- Li Lithosol - kamnišče

Pr. Presence (number of relevés in which the species is presented) - število popisov, v katerih se pojavlja vrsta

Fr. Frequency in % - frekvenca v %

Table 4 (Preglednica 4): *Palustriello commutati-Veronicetum urticifoliae, Cratoneuretum commutati*

Successive number of relevé (Zaporedna številka popisa)	1	2	3	4	5	6	7	8	9	10	1			
Database number of relevé (Delovna številka popisa)	275014	275016	282695	282718	287143	281769	282701	282702	287148	287167	287174			
Elevation in m (Nadmorska višina v m)	350	350	530	650	940	770	540	540	870	450	350			
Aspect (Lega)	N	N	NEE	SEE	SW	SE	NW	NW	S	NW	NW			
Slope in degrees (Nagib v stopinjah)	70	90	90	85	85	80	80	80	80	95	90			
Parent material (Matična podlaga)	LMCh	LMCh	LCh	DChCl	LCIch	LMCh	LCh	LCh	Cl	LMCh	LMCh			
Soil (Tla)	Li	Li	Li	Li	Li	Li	Li	Li	Li	Li	Hy			
Stoniness in % (Kamnitost v %)	100	100	100	100	100	100	100	100	100	100	100			
Cover of herb layer in % (Zastiranje zeliščne plasti v %):	40	40	30	30	30	50	30	10	10	20				
Cover of moss layer in % (Zastiranje mahovne plasti v %):	30	80	30	40	40	30	70	90	80	80	80			
Number of species (Število vrst)	17	21	28	20	23	9	25	16	13	20	3			
Relevé area (Velikost popisne ploskve)	m ²	10	10	10	15	20	6	15	15	5	20			
Date of taking relevé (Datum popisa)	7/1/2018	7/1/2018	9/15/2020	9/15/2020	8/10/2021	6/24/2020	9/15/2020	9/15/2020	8/10/2021	8/11/2021	6/18/2021			
Locality (Nahajališče)	Liščak	Liščak	Liščak-Zališčar jeva grapa	Liščak	Liščak povirje	Lisec-Sopot	Liščak	Liščak	Liščak povirje	Lisec-Sopot	Liščak			
Quadrant (Kvadrant)	9849/1	9849/1	9749/3	9749/3	9749/3	9749/3	9749/3	9749/3	9749/3	9849/1	9849/1			
Coordinate GK Y (D-48)	m	410909	410878	411347	411149	411739	411715	411461	411464	411706	411290			
Coordinate GK X (D-48)	m	5117044	5117008	5117946	5118055	5118916	5118613	5117965	5117984	5118799	5117614			
Diagnostic species of the association (Dignostične vrste asociacije)											Pr.	Fr.		
AP <i>Palustriella commutata</i>	E0	2	2	1	3	1	1	3	5	4	4	10	100	3
MC <i>Conocephalum conicum</i>	E0	2	2	2	3	3	+	+	+	+	1	10	100	
VP <i>Veronica urticifolia</i>	E1	3	3	+	1	+	1	+	+	+	+	10	100	
AT <i>Asplenium trichomanes</i>	E1	1	+	2	1	1	+	+	+	+	+	10	100	
FS <i>Galeobdolon flavidum</i>	E1	.	1	+	1	1	.	2	.	1	1	7	70	
MuA <i>Senecio ovatus</i>	E1	.	.	+	1	+	.	+	+	.	.	5	50	
AP <i>Astrantia carniolicae-Paederotium luteae</i>														
<i>Hymenostylium recurvirostrum</i>	E0	1	.	+	.	.	.	2	1	.	1	5	50	
<i>Apopellia endiviifolia (Pellia endiviifolia)</i>	E0	.	.	1	+	.	.	+	+	+	+	6	60	
<i>Fissidens dubius</i>	E0	.	.	+	.	.	.	1	+	.	1	4	40	
<i>Valeriana tripteris</i>	E1	.	.	+	.	r	.	.	+	.	.	3	30	
<i>Astrantia carniolica</i>	E1	1	.	.	.	.	.	.	+	.	.	2	20	
<i>Cystopteris fragilis</i>	E1	.	.	.	1	2	.	.	.	.	.	2	20	
<i>Asplenium viride</i>	E1	+	.	.	.	.	.	.	.	.	.	1	10	
<i>Eucladium verticillatum</i>	E0	.	.	+	.	.	.	.	.	.	.	1	10	4
<i>Carex brachystachys</i>	E1	.	.	+	.	.	.	.	.	.	.	1	10	
<i>Paederota lutea</i>	E1	.	.	.	.	.	1	.	.	.	.	1	10	
<i>Orthothecium rufescens</i>	E0	.	.	.	.	.	.	1	.	.	.	1	10	
PsSp <i>Physoplexido comosae-Saxifragion petraeae</i>														
<i>Campanula carnica</i>	E1	.	.	.	.	r	1	.	.	+	.	3	30	
PC <i>Potentilletalia caulescentis</i>														
<i>Saxifraga crustata</i>	E1	.	.	.	.	.	.	.	+	.	.	1	10	
AT <i>Asplenieta trichomanis</i>														
<i>Asplenium ruta-muraria</i>	E1	.	.	+	.	.	+	+	.	.	.	3	30	

Successive number of relevé (Zaporedna številka popisa)	1	2	3	4	5	6	7	8	9	10	Pr.	Fr.	1
TR <i>Thlaspietea rotundifolii</i>													
<i>Adenostyles glabra</i>	E1	+	.	+	.	1	+	.	+	.	5	50	
<i>Hieracium bifidum</i>	E1	.	.	+	.	.	.	.	.	.	1	10	
<i>Gymnocarpium robertianum</i>	E1	.	.	.	r	.	.	.	.	.	1	10	
MC <i>Montio-Cardaminetea</i>													
<i>Oxyrrhynchium schleicheri</i>	E0	.	.	1	+	+	.	1	.	.	4	40	
<i>Oxyrrhynchium hians</i>	E0	.	.	+	.	.	+	+	.	1	4	40	
<i>Brachythecium rivulare</i>	E0	.	.	.	+	+	.	.	.	.	2	20	
<i>Rhynchostegium riparioides</i>	E0	.	.	.	.	1	.	.	1	.	2	20	+
<i>Cratoneuron filicinum</i>	E0	.	.	.	.	.	.	.	+	.	1	10	
CD <i>Caricetalia davallianae</i>													
<i>Calliergonella lindbergii</i>	E0	.	.	+	.	.	.	.	.	.	1	10	
ES <i>Elyno-Seslerietea</i>													
<i>Sesleria caerulea</i>	E1	.	.	.	.	.	2	.	.	.	1	10	
EA <i>Epilobietea angustifolii</i>													
<i>Rubus idaeus</i>	E1	.	+	.	.	.	.	.	.	.	1	10	
TG <i>Trifolio-Geranietea</i>													
<i>Campanula rapunculoides</i>	E1	.	.	+	.	.	+	.	.	.	2	20	
<i>Digitalis grandiflora</i>	E1	.	.	+	.	.	.	.	.	.	1	10	
EP <i>Erico-Pinetea, Festuco-Brometea</i>													
<i>Calamagrostis varia</i>	E1	.	.	.	.	+	.	.	.	+	2	20	
<i>Cirsium erisithales</i>	E1	.	.	.	.	+	.	.	.	.	1	10	
<i>Bupthalmum salicifolium</i>	E1	.	.	.	.	.	+	.	.	.	1	10	
VP <i>Vaccinio-Piceetea</i>													
<i>Oxalis acetosella</i>	E1	+	.	+	.	.	.	.	.	+	3	30	
<i>Saxifraga cuneifolia</i>	E1	.	+	.	.	.	1	.	.	.	2	20	
<i>Solidago virgaurea</i>	E1	.	.	.	+	r	.	.	.	.	2	20	
<i>Calamagrostis arundinacea</i>	E1	.	+	.	.	.	.	.	.	.	1	10	
AF <i>Aremonio-Fagion, Erythronio-Carpinion</i>													
<i>Cardamine trifolia</i>	E1	+	+	.	.	.	1	1	+	1	6	60	
<i>Lamium orvala</i>	E1	+	.	.	.	.	.	.	+	.	2	20	
<i>Primula vulgaris</i>	E1	.	.	.	.	+	.	.	.	.	1	10	
TA <i>Tilio-Acerion</i>													
<i>Geranium robertianum</i>	E1	.	.	.	1	+	.	.	.	+	3	30	
<i>Aruncus dioicus</i>	E1	.	+	.	.	.	+	.	.	.	2	20	
<i>Phyllitis scolopendrium</i>	E1	.	1	.	.	.	.	.	.	1	2	20	
<i>Polystichum setiferum</i>	E1	.	+	.	.	.	.	.	.	.	1	10	
<i>Polystichum x wirtgenii</i>	E1	.	+	.	.	.	.	.	.	.	1	10	
<i>Ulmus glabra</i>	E1	.	+	.	.	.	.	.	.	.	1	10	
<i>Circaea x intermedia</i>	E1	.	.	.	.	+	.	.	.	.	1	10	
FS <i>Fagetalia sylvaticae</i>													
<i>Mycelis muralis</i>	E1	.	+	.	.	+	.	+	+	.	4	40	
<i>Galium laevigatum</i>	E1	.	+	.	.	.	.	+	.	+	3	30	
<i>Petasites albus</i>	E1	+	1	.	.	.	.	.	.	.	2	20	
<i>Fraxinus excelsior</i>	E1	+	+	.	.	.	.	.	.	.	2	20	
<i>Salvia glutinosa</i>	E1	.	.	.	+	+	.	.	.	.	2	20	
<i>Festuca altissima</i>	E1	+	.	.	.	.	.	.	.	.	1	10	
<i>Asarum europaeum</i> subsp. <i>caucasicum</i>	E1	.	.	+	.	.	.	.	.	.	1	10	
<i>Campanula trachelium</i>	E1	.	.	.	.	+	.	.	.	.	1	10	
<i>Poa nemoralis</i>	E1	.	.	.	.	+	.	.	.	.	1	10	
<i>Sambucus nigra</i>	E2a	.	.	.	.	.	.	.	.	+	1	10	
QP <i>Quercetalia pubescenti-petraeae</i>													
<i>Sesleria autumnalis</i>	E1	.	.	+	+	+	.	.	.	.	3	30	
<i>Arabis turrata</i>	E1	.	.	+	+	.	.	.	.	.	2	20	
QF <i>Quercio-Fagetea</i>													
<i>Hedera helix</i>	E1	1	+	+	.	.	+	+	.	.	5	50	
<i>Carex digitata</i>	E1	1	.	+	+	.	+	.	.	.	4	40	
<i>Veratrum nigrum</i>	E1	+	.	.	.	.	.	.	.	.	1	10	
<i>Clematis vitalba</i>	E1	.	.	.	+	.	.	.	.	.	1	10	
ML <i>Mosses (Mahovi)</i>													
<i>Plagiomnium rostratum</i>	E0	.	.	+	.	.	+	+	.	+	4	40	
<i>Thamnobyum alopecurum</i>	E0	.	2	.	.	.	+	.	.	1	3	30	

Successive number of relevé (Zaporedna številka popisa)	1	2	3	4	5	6	7	8	9	10	Pr.	Fr.	1
<i>Mnium thomsonii</i>	E0	.	1	.	.	.	.	.	.	1	2	20	
<i>Plagiomnium undulatum</i>	E0	.	2	.	.	.	.	.	.	.	1	10	
<i>Tortella tortuosa</i>	E0	.	+	.	.	.	.	.	.	.	1	10	
<i>Mnium stellare</i>	E0	.	.	1	.	.	.	.	.	.	1	10	
<i>Pedinophyllum interruptum</i>	E0	.	.	.	.	.	.	.	.	+	1	10	

Legend - Legenda

L Limestone - apnenec

Ch Chert - roženec

D Dolomite - dolomit

Cl Claystone - glinavec

M Marlstone - laporovec

Li Lithosol - kamnišče

Hy Hygromorphic soil - higromorfna tla

Pr. Presence (number of relevés in which the species is presented) - število popisov, v katerih se pojavlja vrsta

Fr. Frequency in % - frekvenca v %

Table 5 (Preglednica 5): *Campanulo cespitosae-Saxifragetum aizoidis achnatheretosum calamagrostis*

Successive number of relevé (Zaporedna številka popisa)		1	2	3	4	5	6	7	8	9	10		
Database number of relevé (Delovna številka popisa)		281776	282704	282705	282709	282706	282708	282714	282707	282711	282715		
Elevation in m (Nadmorska višina v m)		740	750	740	725	740	730	750	735	785	750		
Aspect (Lega)		SE	SSW	S	S	W	S	SW	S	SW	NE		
Slope in degrees (Nagib v stopinjah)		70	80	80	90	70	80	80	70	75	80		
Parent material (Matična podlaga)		LMCh	LChCl	LChCl	LChCl	LChCl	LChCl	LChCl	LChCl	LChCl	LChCl		
Soil (Tla)		Li	Li	Li	Li	Li	Li	Li	Li	Li	Li		
Stoniness in % (Kamnitost v %)		100	100	100	100	100	100	100	100	100	100		
Cover of shrub layer in % (Zastiranje grmovne plasti v %):													
Cover of herb layer in % (Zastiranje zeliščne plasti v %):		40	30	30	40	40	60	30	50	60	20		
Cover of moss layer in % (Zastiranje mahovne plasti v %):		5	10	5	20	20	10	20	15	20	10		
Number of species (Število vrst)		17	19	10	13	12	14	9	18	20	15		
Relevé area (Velikost popisne ploskve)	m ²	10	10	10	10	10	10	10	10	10	10		
Date of taking relevé (Datum popisa)		6/24/2020	9/15/2020	9/15/2020	9/15/2020	9/15/2020	9/15/2020	9/15/2020	9/15/2020	9/15/2020	9/15/2020		
Locality (Nahajališče)		Liseec-Gradnikova grapa	Liščak-Luknova grapa	Liščak-Luknova grapa	Liščak-Luknova grapa	Liščak-Luknova grapa	Liščak-Luknova grapa	Liščak-Luknova grapa	Liščak-Luknova grapa	Liščak-Luknova grapa	Liščak-Luknova grapa		
Quadrant (Kvadrant)		9749/3	9849/1	9849/1	9849/1	9849/1	9849/1	9849/1	9849/1	9849/1	9849/1		
Coordinate GK Y (D-48)	m	411516	412004	411987	411951	411991	411961	412003	411979	412052	412019		
Coordinate GK X (D-48)	m	5118549	5117841	5117843	5117838	5117844	5117839	5117845	5117845	5117848	5117826		
Diagnostic species of the association (Diagnostične vrste asociacije)											Pr.	Fr.	
MC <i>Saxifraga aizoides</i>	E1	+	2	1	2	2	2	2	2	3	1	10	100
PcSp <i>Campanula cespitosa</i>	E1	1	1	+	1	1	1	+	1	1	1	10	100
EP <i>Molinia arundinacea</i>	E1	1	1	.	+	1	.	.	2	+	.	6	60
AP <i>Palustriella commutata</i>	E0	+	.	.	.	1	.	.	1	.	.	3	30
EP <i>Calamagrostis varia</i>	E1	.	.	.	.	.	.	+	.	.	.	1	10
Differential species of subassociation (Razlikovalnice subasociacije)													
TR <i>Achnatherum calamagrostis</i>	E1	+	1	2	2	3	4	2	1	1	1	10	100
ML <i>Tortella tortuosa</i>	E0	1	1	+	1	2	2	2	1	1	.	9	90
TR <i>Hieracium glaucum</i>	E1	.	+	+	+	+	+	+	+	+	+	9	90
PC <i>Saxifraga crustata</i>	E1	+	+	1	1	.	+	.	+	.	1	7	70
TG <i>Calamintha einseleana</i>	E1	.	+	+	1	1	1	.	+	r	.	7	70
AP <i>Astrantio carniolicae-Paederotion luteae</i>													
<i>Hymenostylium recurvirostrum</i>	E0	+	.	.	.	.	.	.	.	+	.	2	20
<i>Apopellia endiviifolia</i> (<i>Pellia endiviifolia</i>)	E0	.	+	.	+	.	.	.	.	+	.	3	30
<i>Hydrogonium croceum</i> (<i>Barbula crocea</i>)	E0	.	.	.	+	.	.	.	.	+	.	2	20
<i>Aster bellidifolium</i>	E1	.	.	.	.	+	.	.	.	.	.	1	10
PcSp <i>Physoplexido comosae-Saxifragion petraeae</i>													
<i>Hieracium porrifolium</i>	E1	1	1	+	+	.	.	1	+	+	1	8	80
TR <i>Thlaspietea rotundifolii</i>													
<i>Hieracium bifidum</i>	E1	.	.	.	.	.	.	.	+	r	1	3	30
<i>Trisetum argenteum</i>	E1	+	.	.	.	.	.	.	+	+	.	3	30
<i>Petasites paradoxus</i>	E1	.	.	.	.	.	+	.	.	.	.	1	10
<i>Adenostyles glabra</i>	E1	.	.	.	.	.	.	.	.	.	+	1	10
<i>Hieracium dollineri</i>	E1	.	.	.	.	.	.	.	.	.	+	1	10

Successive number of relevé (Zaporedna številka popisa)	1	2	3	4	5	6	7	8	9	10		
ES Elyno-Seslerietea												
<i>Sesleria caerulea</i>	E1	.	.	.	.	.	.	+	1	1	3	30
<i>Carex ferruginea</i>	E1	.	.	.	.	.	.	+	.	.	1	10
FB Festuco-Brometea												
<i>Bromopsis erecta</i>	E1	1	.	.	.	+	.	.	.	.	2	20
<i>Carlina acaulis</i>	E1	.	.	.	.	+	.	.	r	.	2	20
<i>Brachypodium rupestre</i>	E1	+	.	.	.	.	.	.	.	.	1	10
<i>Carex humilis</i>	E1	+	.	.	.	.	.	.	.	.	1	10
<i>Buphthalmum salicifolium</i>	E1	.	+	.	.	.	.	.	.	.	1	10
<i>Pimpinella saxifraga</i>	E1	.	+	.	.	.	.	.	.	.	1	10
<i>Thymus praecox</i>	E1	.	+	.	.	.	.	.	.	.	1	10
TG Trifolio-Geranieta												
<i>Hypericum perforatum</i>	E1	.	.	.	.	.	.	+	r	.	2	20
<i>Libanotis daucifolia</i>	E1	+	.	.	.	+	.	.	.	.	2	20
EA Epilobietea angustifolii												
<i>Eupatorium cannabinum</i>	E1	.	r	.	.	.	.	+	.	.	2	20
<i>Tussilago farfara</i>	E1	.	.	.	1	.	.	+	.	.	2	20
BA Betulo-Alnetea												
<i>Salix appendiculata</i>	E2a	.	.	.	+	.	.	+	.	.	2	20
EP Erico-Pinetea												
<i>Epipactis atrorubens</i>	E1	+	.	.	.	.	.	.	.	.	1	10
<i>Erica carnea</i>	E1	.	.	.	.	.	.	.	.	+	1	10
VP Vaccinio-Piceetea												
<i>Picea abies</i>	E2a	.	r	.	.	.	.	.	.	.	1	10
<i>Larix decidua</i>	E2a	.	.	r	.	.	.	.	.	.	1	10
<i>Veronica urticifolia</i>	E1	.	.	.	.	.	.	.	.	+	1	10
TA Tilio-Acerion												
<i>Geranium robertianum</i>	E1	.	.	.	+	.	+	.	.	.	2	20
EC Erythronio-Carpinion												
<i>Primula vulgaris</i>	E1	.	r	.	.	.	.	.	.	.	1	10
QP Quercetalia pubescenti-petraeae												
<i>Ostrya carpinifolia</i>	E2a	.	+	1	+	+	.	1	+	.	6	60
<i>Fraxinus ornus</i>	E3a	.	.	.	.	+	.	.	.	.	1	10
<i>Fraxinus ornus</i>	E2a	+	.	.	.	.	+	+	1	+	5	50
<i>Sesleria autumnalis</i>	E1	.	+	.	.	.	.	.	.	+	2	20
<i>Carex flacca</i>	E1	+	.	.	.	.	.	.	.	.	1	10
ML Mosses (Mahovi)												
<i>Pohlia wahlenbergii</i>	E0	.	+	.	+	.	+	.	+	.	4	40
<i>Didymodon vinealis</i>	E0	.	.	.	.	.	.	.	+	.	1	10
<i>Ctenidium molluscum</i>	E0	.	.	.	.	.	.	.	.	1	1	10

Legend - Legenda

L Limestone - apnenec

Ch Chert - roženec

Cl Claystone - glinavec

M Marlstone - laporovec

Li Lithosol - kamnišče

Pr. Presence (number of relevés in which the species is presented) - število popisov, v katerih se pojavlja vrsta

Fr. Frequency in % - frekvenca v %

Table 6 (Preglednica 6): *Veronico urticifoliae-Saxifragetum cuneifolii*

Successive number of relevé (Zaporedna številka popisa)		1	2	3	4	5	6	7	8	9	10	11
Database number of relevé (Delovna številka popisa)		215109	261182	261797	261798	268260	269096	269098	279922	261006	261796	261227
Elevation in m (Nadmorska višina v m)		160	450	300	300	710	850	825	590	260	240	320
Aspect (Lega)		NW	NW	N	NE	E	W	W	W	NNE	N	NE
Slope in degrees (Nagib v stopinjah)		80	90	85	80	80	90	90	80	80	100	95
Parent material (Matična podlaga)		L	L	Br	L	Cl	Cl	LCh	L	L	L	L
Soil (Tla)		Li	Li	Li	Li	Li	Li	Li	Li	Li	Li	Li
Stoniness in % (Kamnitost v %)		100	100	100	100	100	100	100	100	100	100	100
Cover of herb layer in % (Zastiranje zeliščne plasti v %):		30	17	20	15	40	20	30	30	30	20	10
Cover of moss layer in % (Zastiranje mahovne plasti v %):		30	20	10	10	60	30	20	20	20	30	10
Number of species (Število vrst)		20	17	13	12	13	10	16	11	17	14	8
Relevé area (Velikost popisne ploskve)	m ²	10	10	10	10	5	5	10	20	10	10	10
Date of taking relevé (Datum popisa)		4/3/2007	4/29/2016	5/3/2016	5/3/2016	9/4/2017	5/17/2017	5/17/2017	4/11/2020	4/22/2016	5/3/2016	4/29/2016
Locality (Nahajališče)		Srnjak	Na Vrhu	Plave-Sopet	Plave-Sopet	Zapoška grapa	Kacempoh-Kobla	Kacempoh	Kacempoh	Plave-Strmec	Plave-Sopet	Na Vrhu-Strmec
Quadrant (Kvadrant)		9947/4	9947/4	9947/3	9947/3	9849/2	9749/4	9749/4	9749/4	9947/3	9947/3	9947/3
Coordinate GK Y (D-48)	m	5098742	391458	390353	389892	389855	421265	420153	420133	420227	390327	389977
Coordinate GK X (D-48)	m	5098742	391458	390353	389892	389855	421265	420153	420133	420227	390327	389977
Diagnostic species of the association (Diagnostične vrste asociacije)												
VP <i>Saxifraga cuneifolia</i>	E1	2	1	1	+	3	2	2	2	1	2	1
AT <i>Asplenium trichomanes</i>	E1	1	1	1	1	1	1	1	1	+	1	1
VP <i>Veronica urticifolia</i>	E1	1	.	+	1	1	+	+	+	2	+	+
ML <i>Exertotheca crista (Neckera crista)</i>	E0	+	2	2	1	3	2	2	2	.	.	.
AP <i>Valeriana tripteris</i>	E1	.	+	.	.	1	.	+	.	.	.	.
Differential species of lower units (Razlikovalnice nižjih enot)												
FS <i>Galeobdolon flavidum</i>	E1	.	.	+	.	.	.	.	.	+	+	.
PA <i>Fissidens dubius</i>	E0	.	+	.	.	1	.	.	.	.	.	+
TA <i>Phyllitis scolopendrium</i>	E1	.	.	.	.	.	.	.	+	.	.	.
AP <i>Astrantia carniolicae-Paederotium luteae</i>												
<i>Palustriella commutata</i>	E0	.	.	+	.	.	.	.	.	+	1	.
<i>Cystopteris fragilis</i>	E1	.	.	.	.	+	+	.	.	.	.	.
<i>Orthothecium rufescens</i>	E0	+	.	.	.	.	.	.	.	.	.	.
<i>Carex brachystachys</i>	E1	.	.	.	.	.	.	+	.	.	.	.
<i>Apopellia endiviifolia (Pellia endiviifolia)</i>	E0	.	.	+	.	.	.	.	.	+	+	.
<i>Hydrogonium croceum (Barbula crocea)</i>	E0	.	.	.	.	.	.	.	.	.	.	.
<i>Aster bellidiastrum</i>	E1	r	.	.	.	.	.	.	.	.	.	.
<i>Hymenostylium recurvirostrum</i>	E0	.	.	.	.	.	2	.	.	.	.	.
<i>Asplenium viride</i>	E1	.	.	.	.	.	.	+	+	.	.	.
<i>Eucladium verticillatum</i>	E0	.	.	.	.	.	.	.	.	.	2	.
<i>Paederota lutea</i>	E1	.	.	.	.	.	.	+	.	.	.	.
<i>Viola biflora</i>	E1	.	.	.	.	.	.	+	.	.	.	.
<i>Jungermannia atrovirens</i>	E0	.	.	.	.	.	.	.	.	.	.	.
<i>Astrantia carniolica</i>	E1	.	.	.	.	.	.	.	.	.	.	.

Successive number of relevé (Zaporedna številka popisa)		1	2	3	4	5	6	7	8	9	10	11
PsSp Physoplexido comosae-Saxifragion petraeae												
<i>Phyteuma scheuchzeri</i> subsp. <i>columnae</i>	E1	1	1	1	+	.	.	.	.	1	+	.
<i>Saxifraga petraea</i>	E1	.	+	.	.	.	.	.	.	.	.	r
<i>Campanula carnica</i>	E1	.	.	.	.	.	.	.	.	.	.	.
PC Potentilletalia caulescentis												
<i>Saxifraga crustata</i>	E1	.	.	.	.	.	.	+	.	.	.	.
AT Asplenietea trichomanis												
<i>Moehringia muscosa</i>	E1	+	+	.	+	.	+	.	.	.	.	.
<i>Asplenium ruta-muraria</i>	E1	.	.	.	.	.	.	1	.	+	.	.
<i>Polypodium vulgare</i>	E1	.	.	.	.	.	+	.	.	.	.	.
<i>Ceterach javorkeanum</i>	E1	.	r	.	.	.	.	.	.	.	.	.
<i>Sedum album</i>	E1	.	.	.	.	.	.	.	.	.	.	.
<i>Sedum hispanicum</i>	E1	.	.	.	.	.	.	.	.	.	.	.
<i>Polypodium interjectum</i>	E1	.	.	.	.	.	.	.	.	.	.	.
TR Thlaspietea rotundifolii												
<i>Hieracium bifidum</i>	E1	.	+	.	.	.	+	.	.	.	.	.
<i>Adenostyles glabra</i>	E1	.	.	.	.	.	.	.	.	.	.	.
MC Montio-Cardaminetea												
<i>Conocephalum conicum</i>	E0	+	.	.	.	+	.	.	.	+	+	.
<i>Gymnostomum aeruginosum</i>	E0	.	.	.	1	.	.	.	.	1	.	.
<i>Cratoneuron filicinum</i>	E0	.	.	.	.	.	.	.	.	+	.	.
ES Elyno-Seslerietea												
<i>Sesleria caerulea</i>	E1	.	.	.	.	.	.	+	.	.	.	.
<i>Sesleria tenuifolia</i> subsp. <i>kalnikensis</i>	E1	.	r	.	.	.	.	.	.	.	.	.
BA Betulo-Alnetea												
<i>Salix appendiculata</i>	E1	.	.	.	.	.	.	.	.	.	.	.
MuA Mulgedio-Aconitetea												
<i>Senecio ovatus</i>	E1	.	.	.	.	.	.	.	.	r	.	.
<i>Phyteuma ovatum</i>	E1	.	.	.	.	.	.	.	+	.	.	.
<i>Saxifraga rotundifolia</i>	E1	.	.	.	.	.	.	.	.	.	.	.
<i>Aconitum degenii</i> subsp. <i>paniculatum</i>	E1	.	.	.	.	.	.	.	.	.	.	.
SSC Sambuco-Salicion capreae												
<i>Salix caprea</i>	E1	.	.	.	.	.	.	.	.	.	.	.
TG Trifolio-Geranietea												
<i>Campanula rapunculoides</i>	E1	.	.	.	.	.	.	.	.	.	.	.
<i>Hypericum perforatum</i>	E1	.	.	.	.	.	.	.	.	.	.	.
<i>Digitalis grandiflora</i>	E1	.	.	.	.	.	.	.	.	.	.	.
<i>Laserpitium siler</i>	E1	.	.	.	.	.	.	.	.	.	.	.
EP Erico-Pinetea, Festuco-Brometea												
<i>Calamagrostis varia</i>	E1	.	.	.	.	.	.	.	.	.	.	.
<i>Carex ornithopoda</i>	E1	.	.	.	.	.	.	.	.	.	.	.
<i>Cirsium erisithales</i>	E1	.	.	.	.	.	.	.	.	.	.	.
VP Vaccinio-Piceetea												
<i>Oxalis acetosella</i>	E1	.	.	.	+	.	.	.	.	+	.	.
<i>Solidago virgaurea</i>	E1	.	.	.	.	.	.	.	.	.	.	.
<i>Calamagrostis arundinacea</i>	E1	.	.	.	.	+	.	.	.	.	.	.
<i>Hieracium murorum</i>	E1	+	.	.	.	.	.	.	.	.	.	.
<i>Aposeris foetida</i>	E1	.	.	.	.	.	.	.	.	.	.	.
<i>Homogyne sylvestris</i>	E1	.	.	.	.	.	.	.	.	.	.	.
AF Aremonio-Fagion, Erythronio-Carpinion												
<i>Cyclamen purpurascens</i>	E1	+	r	.	+	.	+	.	.	.	.	.
<i>Cardamine trifolia</i>	E1	1	.	.	.	.	.	.	.	.	.	.
<i>Lamium orvala</i>	E1	.	.	.	.	.	.	.	.	.	r	.
<i>Cardamine enneaphyllos</i>	E1	r	.	.	.	.	.	.	.	.	.	.
<i>Anemone trifolia</i>	E1	.	.	.	.	.	.	.	.	+	.	.
<i>Scopolia carniolica</i>	E1	.	.	.	.	.	.	.	.	.	.	.
<i>Primula vulgaris</i>	E1	.	.	.	.	.	.	.	.	.	.	.
TA Tilio-Acerion, Alnion incanae												
<i>Aruncus dioicus</i>	E1	.	.	.	.	+	.	+	.	.	.	.
<i>Geranium robertianum</i>	E1	.	.	.	.	.	.	.	.	.	.	.
<i>Tephrosieris pseudocrispa</i>	E1	.	.	r	.	+	.	.	.	r	.	.
<i>Ulmus glabra</i>	E1	.	r	.	.	.	.	.	.	.	.	.
<i>Acer pseudoplatanus</i>	E1	.	.	.	.	.	.	.	.	+	.	.

12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	Pr.	Fr.	
.	6	18	
.	.	.	1	1	1	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	6	18
.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	3
.	1	3	
.	.	+	.	+	+	.	+	1	.	.	.	.	.	9	27	
.	.	+	r	.	+	.	.	.	+	.	.	.	.	.	.	1	.	.	.	.	.	7	21
.	2	6	
.	1	3	
.	.	+	1	3	
.	+	1	3	
.	+	1	3	
.	.	+	.	.	+	+	+	6	18
.	+	1	.	.	2	6
.	.	.	+	.	.	+	1	.	+	.	1	.	+	1	+	2	2	14	42	
.	2	6	
.	1	3	
.	3	9	
.	1	.	.	1	3	
.	r	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	3	
.	+	+	.	.	.	1	+	.	.	.	5	15	
.	1	3	
.	+	1	3	
.	+	.	.	1	3	
.	1	3	
.	r	.	.	.	.	.	.	1	3	
.	1	3	
.	3	9	
.	1	3	
.	3	9	
.	1	3	
.	4	12	
.	1	3	
.	5	15	
.	1	3	
.	4	12	
.	3	9	
.	3	9	

Successive number of relevé (Zaporedna številka popisa)		1	2	3	4	5	6	7	8	9	10	11
<i>Polystichum setiferum</i>	E1	.	.	.	.	.	.	.	.	.	.	.
<i>Polystichum aculeatum</i>	E1	.	.	.	.	.	.	.	.	.	.	.
<i>Chrysosplenium alternifolium</i>	E1	.	.	.	.	.	.	.	.	.	.	.
FS <i>Fagetalia sylvaticae</i>												
<i>Mycelis muralis</i>	E1	.	.	+	+	.	.	.	.	.	.	.
<i>Galium laevigatum</i>	E1	.	.	.	.	.	.	.	.	.	.	.
<i>Salvia glutinosa</i>	E1	+	.	.	.	.	.	.	.	.	.	.
<i>Prenanthes purpurea</i>	E1	.	r	.	.	.	.	.	.	.	.	.
<i>Asarum europaeum</i> subsp. <i>caucasicum</i>	E1	.	.	.	.	.	.	.	+	.	.	.
<i>Cardamine pentaphyllos</i>	E1	.	.	.	.	.	.	.	.	.	.	.
<i>Mercurialis perennis</i>	E1	.	.	.	.	.	.	.	.	.	.	.
<i>Allium ursinum</i>	E1	.	.	.	.	.	.	.	.	.	+	.
<i>Euphorbia dulcis</i>	E1	.	.	.	.	.	.	.	.	.	.	.
<i>Sambucus nigra</i>	E1	.	.	.	.	.	.	.	.	.	.	.
<i>Poa nemoralis</i>	E1	.	.	.	.	.	.	.	.	.	.	.
<i>Festuca altissima</i>	E1	.	.	.	.	.	.	.	.	.	.	.
<i>Actaea spicata</i>	E1	.	.	.	.	.	.	.	.	.	.	.
QP <i>Quercetalia pubescenti-petraeae</i>												
<i>Arabis turrita</i>	E1	.	.	.	.	.	.	.	.	.	.	.
<i>Sesleria autumnalis</i>	E1	.	.	.	.	.	.	.	.	.	.	.
<i>Ostrya carpinifolia</i>	E1	.	.	.	.	.	.	.	.	.	.	.
<i>Fraxinus ornus</i>	E1	.	.	.	.	.	.	.	.	.	.	.
QP <i>Quercu-Fagetea</i>												
<i>Hedera helix</i>	E1	.	+	l	.	.	.	.	.	.	l	+
<i>Carex digitata</i>	E1	l	+	.	.	.	.	.	+	+	.	.
<i>Veratrum nigrum</i>	E1	+	.	r	r	.	.	.	.	.	.	.
<i>Hepatica nobilis</i>	E1	+	r	.	.	.	.	.	.	.	.	.
<i>Clematis vitalba</i>	E1	r	.	.	.	.	.	.	.	.	.	.
<i>Festuca heterophylla</i>	E1	.	.	.	.	.	.	.	.	.	.	.
ML Mosses (Mahovi)												
<i>Ctenidium molluscum</i>	E0	.	.	.	.	l	.	.	+	.	.	l
<i>Isoetes alopeuroides</i>	E0	.	.	l	l	.	.	.	.	.	+	.
<i>Oxyrrhynchium hians</i>	E0	.	.	.	.	.	.	.	.	l	r	.
<i>Mnium marginatum</i>	E0	+	l	.	.	.	.	.	.	.	.	l
<i>Tortella tortuosa</i>	E0	.	.	.	.	+	.	.	.	.	.	.
<i>Thamnobryum alopecurum</i>	E0	.	.	.	.	.	.	.	.	.	.	.
<i>Mnium thomsonii</i>	E0	.	.	.	.	.	.	.	.	.	.	.
<i>Anomodon viticulosus</i>	E0	.	.	.	.	.	.	.	.	.	.	.
<i>Plagiomnium undulatum</i>	E0	.	.	.	.	.	.	.	.	.	.	.
<i>Pseudanomodon attenuatus</i> (<i>Anomodon attenuatus</i>)	E0	.	.	.	.	.	.	.	2	.	.	.
<i>Chionoloma tenuirostre</i> (<i>Oxystegus tenuirostre</i>)	E0	.	+	.	.	.	.	.	+	.	.	.
<i>Encalypta streptocarpa</i>	E0	+	.	.	.	.	.	.	.	.	.	.
<i>Brachythecium rutabulum</i>	E0	.	.	.	.	.	.	.	.	.	.	.
<i>Plagiomnium rostratum</i>	E0	.	.	.	.	.	.	.	.	.	.	.
<i>Pedinophyllum interruptum</i>	E0	.	.	.	.	.	.	.	.	.	.	.
<i>Bryum</i> sp.	E0	.	.	.	.	.	.	l	.	.	.	.
<i>Homalothecium philippeanum</i>	E0	.	.	.	.	.	.	.	.	.	.	.
<i>Alleniella complanata</i> (<i>Neckera complanata</i>)	E0	.	.	.	.	.	.	.	.	.	.	.
<i>Mnium spinulosum</i>	E0	.	.	.	.	.	.	.	.	.	.	.
<i>Weisia</i> sp.	E0	.	.	.	.	.	.	.	.	.	.	.
<i>Brachythecium salebrosum</i>	E0	.	.	.	.	.	.	.	.	.	.	.
<i>Amblystegium serpens</i>	E0	.	.	.	.	.	.	.	.	.	.	.

Legend - Legenda

L Limestone - apnenec

Br Breccia - breča

Ch Chert - roženec

D Dolomite - dolomit

Cl Claystone - glinavec

M Marlstone - laporovec

Li Lithosol - kamnišče

Pr. Presence (number of relevés in which the species is presented) - število popisov, v katerih se pojavlja vrsta

Fr. Frequency in % - frekvenca v %

12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	Pr.	Fr.
.	+	+	.	.	.	+	3	9
.	+	+	+	3	9
.	+	+	2	6
.	.	.	r	+	+	+	.	.	.	.	+	+	+	+	.	+	+	1	.	.	r	14	42
.	+	.	+	.	.	+	+	+	+	+	.	+	+	9	27
.	+	.	.	r	.	.	+	1	.	.	.	5	15
.	+	+	.	.	+	+	.	.	5	15
.	+	+	+	.	+	.	.	.	5	15
.	r	+	+	.	.	.	.	.	+	.	.	.	.	.	.	.	.	4	12
.	+	+	+	3	9
.	1	3
.	+	1	3
.	+	1	3
.	+	1	3
.	r	.	.	.	.	1	3
.	+	.	.	1	3
.	4	12
.	+	+	.	2	6
.	.	+	1	3
.	+	.	1	3
.	.	.	.	+	r	.	+	+	1	.	+	+	.	+	+	+	.	+	+	1	.	17	52
+	+	+	.	+	+	.	+	+	.	+	+	+	.	+	15	45
.	r	.	.	.	+	+	.	.	.	.	.	.	.	.	.	.	.	6	18
.	2	6
.	1	3
.	+	.	1	3
.	.	.	+	1	1	1	2	.	.	.	2	+	1	2	+	.	1	.	+	.	1	16	48
.	1	.	1	1	+	1	.	.	.	1	.	1	.	1	.	1	.	1	+	.	.	13	39
r	+	1	.	.	1	.	2	.	.	.	1	.	7	21
.	1	+	.	.	.	.	.	1	.	.	.	6	18
.	+	+	+	+	1	6	18
.	.	.	+	+	.	.	+	1	1	1	.	.	.	.	.	.	.	.	.	.	.	6	18
+	1	.	.	+	+	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	5	15
.	.	.	.	1	.	1	1	.	.	.	.	1	.	.	.	1	.	.	.	.	.	5	15
.	1	.	.	.	1	1	.	1	.	+	.	.	.	.	.	.	5	15
r	.	.	.	+	+	4	12
.	2	6
.	2	6
.	2	6
.	1	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	2	6
.	+	1	.	.	.	.	2	6
.	+	+	2	6
.	1	3
.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	3
.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	3
.	+	1	3
.	+	1	3
.	1	.	.	.	.	.	1	3
.	1	3
.	+	1	3

Table 7 (Preglednica 7): *Calamagrostio variae-Asteretum bellidiastr*

Successive number of relevé (Zaporedna številka popisa)	1	2	3	4	5	6	7	8	9
Database number of relevé (Delovna številka popisa)	268041	272225	272226	272223	272230	274991	282732	274989	275510
Elevation in m (Nadmorska višina v m)	260	235	235	240	320	270	560	275	275
Aspect (Lega)	NE	NE	NE	NE	NNW	N	NW	NE	W
Slope in degrees (Nagib v stopinjah)	80	80	80	90	70	35	15	20	80
Parent material (Matična podlaga)	Co	L	LCh	LCh	LCh	L	D	L	Br
Soil (Tla)	Li	Li	Li	Li	Li	Li	Li	Li	Li
Stoniness in % (Kamnitost v %)	100	100	100	100	100	100	100	100	100
Cover of shrub layer in % (Zastiranje grmovne plasti v %):	.	5	2	.	.	.	.	5	.
Cover of herb layer in % (Zastiranje zeliščne plasti v %):	35	40	50	30	40	30	40	30	30
Cover of moss layer in % (Zastiranje mahovne plasti v %):	70	60	50	30	50	40	30	40	70
Number of species (Število vrst)	15	16	29	17	24	7	22	18	11
Relevé area (Velikost popisne ploskve)	m ²	5	10	10	20	10	15	10	15
Date of taking relevé (Datum popisa)	8/6/2017	8/24/2018	8/24/2018	8/24/2018	8/23/2018	6/29/2018	6/22/2020	6/29/2018	5/14/2019
Locality (Nahajališče)	Slatne-Bača	Slatne-Bača	Slatne-Bača	Slatne-Bača	Klonte-Bača	Kostanjevica-Idrija	Vintgar	Kostanjevica-Idrija	Magozd-Soča
Quadrant (Kvadrant)	9849/1	9849/1	9849/1	9849/1	9849/1	9847/4	9650/2	9847/4	9747/1
Coordinate GK Y (D-48)	m	410681	410599	410575	410663	414786	392932	430204	389940
Coordinate GK X (D-48)	m	5113046	5113100	5113111	5113044	5113826	5108908	5139501	5127013
Diagnostic species of association (Diagnostične vrste asociacije)									
AP <i>Aster bellidiastrum</i>	E1	3	3	2	2	2	2	3	2
EP <i>Calamagrostis varia</i>	E1	+	+	+	+	1	1	1	2
Differential species of lower units (Razlikovalnice nižjih enot)									
ML <i>Brachythecium rivulare</i>	E0	2	2	2	2	.	2	.	2
ML <i>Hygrohypnum luridum</i>	E0	+	+	+	+	.	.	.	1
ML <i>Didymodon spadiceus</i>	E0	1	1	1	1	.	.	.	1
ML <i>Pedinophyllum interruptum</i>	E0	+	+	+	.	.	+	+	.
ML <i>Plagiomnium rostratum</i>	E0	.	.	+	.	+	.	+	.
ML <i>Brachythecium rutabulum</i>	E0	.	.	.	.	2	.	2	.
ML <i>Tortella tortuosa</i>	E0	.	.	.	.	1	.	.	.
TR <i>Hieracium bifidum</i>	E1	.	.	.	.	+	.	.	.
AP <i>Astrantio carniolicae-Paederotium luteae</i>									
<i>Apopellia endiviifolia</i> (<i>Pellia endiviifolia</i>)	E0	.	.	+	.	.	+	.	1
<i>Hydrogonium croceum</i> (<i>Barbula crocea</i>)	E0	.	.	1	.	2	.	.	.
<i>Valeriana tripteris</i>	E1	.	.	.	+	.	.	+	.
<i>Selaginella helvetica</i>	E1	+	.	1	r	.	.	.	.
<i>Paederota lutea</i>	E1	.	.	.	.	.	.	.	+
<i>Carex brachystachys</i>	E1	.	.	.	.	.	.	.	.
<i>Cystopteris fragilis</i>	E1	+	+	+	.	.	.	.	.
<i>Tofieldia calyculata</i>	E1	.	.	.	.	.	.	.	.
<i>Jungermannia atrovirens</i>	E0	.	.	.	+	+	+	.	.
<i>Hymenostylium recurvirostrum</i>	E0	.	.	.	+	.	+	.	.

DAKSKOBLER & MARTINČIČ: VEGETATION OF MOIST ROCK CREVICES AND MOIST (SLOPE) DEBRIS IN THE LIŠČAK GORGE

10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28		
287214	273967	288697	271060	288869	288874	288931	288932	285280	285357	277643	278224	285357	286024	277783	285362	281773	275017	287214		
295	780	370	270	350	350	355	350	330	300	354	530	300	315	580	295	785	350	295		
SE	NW	NNE	N	S	NE	N	N	SW	0	S	W	0	NE	E	SSW	SW	N	SE		
90	15	70	20	90	90	80	75	90	70	80	90	95	80	30	80	95	80	90		
LC|Ch	D	L	D	L	LC|	L	L	DCh	DCh	L	DA	DCh	L	D	DCh	CMCh	CMCh	LC|Ch		
Li	Li	Li	Li	Li	Li	Li	Li	Li	Li	Li	Li	Li	Li	Li	Li	Li	Li	Li		
100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100		
5	5	5	5	.	5	.	.	5	2	.	.	2	.	.	5	.	5	5		
30	30	40	40	20	10	20	30	30	25	30	30	25	40	40	20	40	30	30		
5	30	30	10	5	5	20	20	10	30	10	30	30	50	20	30	30	30	5		
13	26	28	27	21	16	12	17	16	14	9	18	14	11	9	7	9	15	13		
10	15	20	50	20	10	10	10	10	10	10	10	10	10	5	10	6	10	10		
6/18/2021	7/2/2018	8/25/2021	4/29/2018	8/26/2021	8/26/2021	9/2/2021	9/2/2021	4/9/2021	4/14/2021	6/9/2019	9/20/2019	4/14/2021	5/20/2021	6/24/2019	4/14/2021	6/24/2020	7/1/2018	6/18/2021		
Knežica-Mlinar	Gačnik	Nadiža-Jamninkova voda	Gorenja Trebuša-Trebušica	Nadiža-Logje	Nadiža-Gradec	Nadiža-Legrada	Nadiža-Legrada	Velike Luti	Velike Luti	Tolminka-Srednjica	Trenta	Velike Luti	Srpenica-Soča	Voje-Mostnica	Loje-Knežica	Liščak-Sopot	Liščak	Knežica-Mlinar		
9849/1	9949/1	9746/4	9948/4	9746/4	9746/4	9746/4	9746/4	9849/1	9849/1	9748/3	9648/1	9849/1	9747/1	9649/3	9849/1	9749/3	9849/1	9849/1		
411053	412178	378366	409681	378835	378817	378715	378722	410993	411032	401996	400714	411032	386345	414558	411047	411736	410831	411053		
5116380	5101829	5122586	5100935	5122256	5122242	5122322	5122297	5116606	5116480	5122073	5135770	5116480	5128001	5129152	5116366	5118632	5116972	5116380		
2	1	1	2	2	+	1	1	1	3	2	1	3	3	2	1	2	2	2	Pr.	Fr.
1	+	+	1	1	.	+	+	.	r	r	+	r	.	+	1	+	.	1	24	86
.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	7	25
.	.	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	8	29
.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	6	21
.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	5	18
.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	14
.	.	+	1	1	1	2	2	1	3	1	1	3	1	2	2	+	.	.	4	14
.	.	.	+	.	.	+	+	+	1	.	.	1	.	r	.	.	.	.	15	54
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	10	36
.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	5	18
.	.	+	.	.	.	.	.	.	.	.	2	.	.	.	.	.	1	.	5	18
.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	5	18
.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	14
.	.	.	+	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	4	14
.	.	.	.	.	.	.	.	2	.	.	.	.	.	.	.	.	.	.	3	11
.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	11
.	.	1	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	2	7
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	14
.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	1	.	.	4	14

Successive number of relevé (Zaporedna številka popisa)		1	2	3	4	5	6	7	8	9
<i>Palustriella commutata</i>	E0	.	.	.	.	.	.	.	.	.
<i>Eucladium verticillatum</i>	E0	.	.	+	.	.	.	.	.	.
<i>Viola biflora</i>	E1	.	.	.	.	.	.	+	.	.
<i>Astrantia carniolica</i>	E1	.	.	.	.	.	.	.	.	.
<i>Fissidens dubius</i>	E0	.	.	.	.	.	.	.	.	.
<i>Valeriana saxatilis</i>	E1	.	.	.	.	.	.	.	.	.
<i>Pinguicula alpina</i>	E1	.	.	.	.	.	.	.	.	.
<i>Marchantia quadrata</i> (<i>Preissia quadrata</i>)	E0	.	.	.	.	.	.	.	.	.
PcSp Physoplexido comosae-Saxifragion petraeae										
<i>Hieracium pospichalii</i>	E1	+	.	.	.	.	.	.	.	.
<i>Campanula cespitosa</i>	E1	.	.	.	.	.	.	.	.	.
<i>Campanula carnica</i>	E1	.	.	.	.	.	.	.	.	.
<i>Hieracium porrifolium</i>	E1	.	.	.	.	.	.	.	.	.
<i>Athamanta turbith</i>	E1	.	.	.	.	.	.	.	.	.
<i>Micromeria thymifolia</i>	E1	.	.	.	.	.	.	.	.	.
<i>Phyteuma scheuchzeri</i> subsp. <i>columnae</i>	E1	.	.	.	.	.	.	.	.	.
<i>Campanula zoysii</i>	E1	.	.	.	.	.	.	.	.	.
PC Potentilletalia caulescentis										
<i>Saxifraga hostii</i>	E1	.	.	.	.	.	.	.	.	.
<i>Festuca stenantha</i>	E1	.	.	.	.	.	.	.	.	.
<i>Potentilla caulescens</i>	E1	.	.	.	.	.	.	.	.	.
AT Asplenietea trichomanis										
<i>Asplenium ruta-muraria</i>	E1	.	.	.	.	.	.	.	.	+
<i>Asplenium trichomanes</i>	E1	.	.	.	.	.	.	.	.	.
MC Montio-Cardaminetea										
<i>Conocephalum conicum</i>	E0	3	1	2	+	+	.	.	.	.
<i>Cratoneuron filicinum</i>	E0	.	.	1	.	.	.	.	.	.
<i>Oxyrrhynchium hians</i>	E0	.	+	.	.	.	.	.	.	.
<i>Calliergonella cuspidata</i>	E0	.	.	+	.	.	.	.	.	.
<i>Cololejeunea calcarea</i>	E0	.	.	.	+	.	.	.	.	.
<i>Fontinalis antipyretica</i> var. <i>antipyretica</i>	E0	.	.	.	.	.	.	.	1	.
<i>Palustriella decipiens</i>	E0	.	.	.	.	.	.	.	.	.
CD Caricetalia davallianae										
<i>Carex flava</i> agg.	E1	.	.	.	.	.	.	.	.	.
<i>Carex lepidocarpa</i>	E1	.	.	.	.	.	.	.	.	.
<i>Campylium stellatum</i>	E1	.	.	.	.	.	.	.	.	.
TR Thlaspietea rotundifolii										
<i>Trisetum argenteum</i>	E1	.	.	.	.	.	.	.	.	1
<i>Petasites paradoxus</i>	E1	.	.	.	.	.	.	.	.	.
<i>Achnatherum calamagrostis</i>	E1	.	.	.	.	.	.	.	+	.
<i>Adenostyles glabra</i>	E1	.	.	.	.	.	.	+	.	.
<i>Hieracium glaucum</i>	E1	.	.	.	.	.	.	.	.	+
<i>Poa compressa</i>	E1	.	.	.	.	.	.	.	.	.
<i>Gymnocarpium robertianum</i>	E1	.	.	.	.	.	.	.	.	.
<i>Peucedanum verticillare</i>	E1	.	.	.	.	.	.	.	.	.
<i>Hieracium piloselloides</i>	E1	.	.	.	.	.	.	.	.	.
<i>Soldanella minima</i>	E1	.	.	.	.	.	.	.	.	.
ES Elyno-Seslerietea										
<i>Sesleria caerulea</i>	E1	.	.	.	.	.	.	.	.	.
<i>Carex ornithopodoides</i>	E1	.	.	.	.	.	.	.	.	.
<i>Carex ferruginea</i>	E1	.	.	.	.	.	.	.	.	.
<i>Carex mucronata</i>	E1	.	.	.	.	.	.	.	.	.
<i>Erigeron glabratus</i>	E1	.	.	.	.	.	.	.	.	.
BA Betulo-Alnetea										
<i>Salix appendiculata</i>	E2a	.	+	.	.	.	.	.	.	.
MuA Mulgedio-Aconitetea										
<i>Chaerophyllum hirsutum</i>	E1	.	.	.	.	r	.	+	.	.
<i>Petasites hybridus</i>	E1	.	.	.	.	.	.	.	+	.
EA Epilobietea angustifolii										
<i>Eupatorium cannabinum</i>	E1	.	r	+	.	.	.	.	+	.
<i>Tussilago farfara</i>	E1	.	.	.	.	+	.	.	1	.
<i>Cardamine hirsuta</i>	E1	.	.	.	.	r	.	.	.	.
<i>Carex oederi</i>	E1	.	.	.	.	.	.	.	.	.

Successive number of relevé (Zaporedna številka popisa)		1	2	3	4	5	6	7	8	9
	<i>Fragaria vesca</i>	E1	.	.	.	.	.	.	.	.
TG	Trifolio-Geranietea									
	<i>Campanula rapunculoides</i>	E1	.	.	.	.	.	+	.	.
	<i>Hypericum perforatum</i>	E1	.	.	.	.	.	.	.	.
PaT	Poo alpinae-Trisetetalia									
	<i>Poa alpina</i>	E1	.	.	.	.	.	.	.	.
Mo	Molinion									
	<i>Taraxacum</i> sect. <i>Palustria</i>	E1	.	.	.	.	.	.	.	.
	<i>Filipendula ulmaria</i>	E1	.	.	.	.	.	+	.	.
	<i>Crepis paludosa</i>	E1	.	.	.	.	.	.	.	.
MA	Molinio-Arrhenatheretea									
	<i>Deschampsia cespitosa</i>	E1	+	.	.	r	.	r	.	.
	<i>Prunella vulgaris</i>	E1	.	.	.	.	+	.	l	.
	<i>Leontodon hispidus</i>	E1	+	.	r	.	.	.	.	.
	<i>Agrostis stolonifera</i>	E1	.	+	.	.	.	.	.	.
	<i>Angelica sylvestris</i>	E1	.	.	r	.	.	.	.	.
	<i>Galium mollugo</i>	E1	.	.	.	.	.	+	.	.
	<i>Taraxacum</i> sect. <i>Ruderalia</i>	E1	.	.	.	.	.	.	+	.
	<i>Dactylis glomerata</i>	E1	.	.	.	.	.	.	.	.
FB	Festuco-Brometea									
	<i>Bupthalmum salicifolium</i>	E1	.	.	.	.	.	.	.	.
	<i>Thymus praecox</i>	E1	.	.	.	.	.	.	.	.
	<i>Plantago media</i>	E1	.	.	.	.	.	.	.	.
	<i>Brachypodium rupestre</i>	E1	.	.	.	.	.	.	.	.
	<i>Koeleria pyramidata</i>	E1	.	.	.	.	.	.	.	.
	<i>Linum catharticum</i>	E1	.	.	.	.	.	.	.	.
	<i>Euphorbia cyparissias</i>	E1	.	.	.	.	.	.	.	.
	<i>Taraxacum</i> sect. <i>Erythrosperma</i>	E1	.	.	.	.	.	.	.	.
	<i>Centaurea dichroantha</i>	E1	.	.	.	.	.	.	.	.
SM	Stellarietea mediae									
	<i>Galinsoga ciliata</i>	E1	.	.	.	r	.	.	.	.
EP	Erico-Pinetea									
	<i>Carex ornithopoda</i>	E1	.	l	+	.	.	.	.	.
	<i>Erica carnea</i>	E1	.	.	.	.	.	.	.	.
	<i>Leontodon incanus</i>	E1	.	.	.	.	.	.	.	.
	<i>Rubus saxatilis</i>	E1	.	.	.	.	.	+	.	.
	<i>Euphrasia cuspidata</i>	E1	.	.	.	.	.	.	.	.
	<i>Molinia arundinacea</i>	E1	.	.	.	.	.	.	.	.
VP	Vaccinio-Piceetea									
	<i>Veronica urticifolia</i>	E1	l	l	l	l	+	l	l	.
	<i>Oxalis acetosella</i>	E1	.	.	r	.	+	.	.	.
	<i>Clematis alpina</i>	E1	.	.	.	.	.	.	.	.
	<i>Calamagrostis arundinacea</i>	E1	.	.	.	.	.	.	.	.
TA	Tilio-Acerion									
	<i>Phyllitis scolopendrium</i>	E1	.	.	+	.	.	.	+	.
	<i>Aruncus dioicus</i>	E1	.	.	.	.	.	l	.	.
	<i>Geranium robertianum</i>	E1	.	+	.	+	+	.	.	.
	<i>Polystichum x wirtgenii</i>	E1	.	.	.	.	.	.	.	.
AI	Alnion incanae									
	<i>Rubus caesius</i>	E1	.	+	.	.	.	.	r	.
	<i>Alnus glutinosa</i>	E2a	.	.	r	.	.	.	+	.
	<i>Salix eleagnos</i>	E2a	.	.	r	.	.	.	.	.
	<i>Knautia drymeia</i> subsp. <i>intermedia</i>	E1	.	.	.	.	+	.	.	.
	<i>Frangula alnus</i>	E2a	.	.	.	.	.	.	.	.
	<i>Viburnum opulus</i>	E2a	.	.	.	.	.	.	.	.
FS	Fagetalia sylvaticae									
	<i>Galeobdolon flavidum</i>	E1	+	.	.	+	r	.	.	.
	<i>Galium laevigatum</i>	E1	.	.	.	.	+	.	.	.
	<i>Mycelis muralis</i>	E1	.	.	r	.	.	+	.	.
	<i>Salvia glutinosa</i>	E1	.	.	+	.	.	.	.	.
	<i>Brachypodium sylvaticum</i>	E1	.	.	+	.	r	.	.	.
	<i>Tilia cordata</i>	E2a	.	+	.	.	.	.	.	.
	<i>Viola reichenbachiana</i>	E1	.	r	.	.	.	.	.	.

Successive number of relevé (Zaporedna številka popisa)	1	2	3	4	5	6	7	8	9
<i>Epilobium montanum</i>	E1	.	.	.	r	.	.	.	.
<i>Ranunculus lanuginosus</i>	E1	.	.	.	.	.	+	.	.
<i>Fagus sylvatica</i>	E2a	.	.	.	.	.	.	.	.
<i>Campanula trachelium</i>	E1	.	.	.	.	.	.	.	.
QP <i>Quercetalia pubescenti-petraeae</i>									
<i>Ostrya carpinifolia</i>	E2a	.	.	.	.	.	.	.	.
<i>Fraxinus ornus</i>	E1	.	.	.	.	.	.	.	.
<i>Clematis vitalba</i>	E1	.	.	.	.	.	.	r	.
<i>Carex flacca</i>	E1	.	.	.	.	.	.	.	.
QF <i>Quercu-Fagetea</i>									
<i>Hedera helix</i>	E1	.	.	.	+	.	.	r	.
<i>Hieracium racemosum</i>	E1	.	.	r	.	.	.	.	.
<i>Hieracium umbellatum</i>	E1	.	.	r	.	.	.	.	.
<i>Viola riviniana</i>	E1	.	.	.	.	.	.	+	.
<i>Carex digitata</i>	E1	.	.	.	.	.	.	.	.
ML Mosses (Mahovi)									
<i>Ctenidium molluscum</i>	E0	1	.	1	.	1	.	1	.
<i>Schistidium apocarpum</i>	E0	.	.	.	.	1	1	.	.
<i>Cirriphyllum crassinervium</i>	E0	.	.	.	1	.	1	.	.
<i>Encalypta streptocarpa</i>	E0	.	.	.	.	.	.	.	.
<i>Dichodontium pellucidum</i>	E0	.	.	+	.	.	.	1	.
<i>Sciuro-hypnum starkei</i> (<i>Brachythecium starkei</i>)	E0	.	1	.	.	.	.	.	.
<i>Trichostomum crispulum</i>	E0	.	+	.	.	.	.	.	.
<i>Amblystegium serpens</i>	E0	.	.	+	.	.	.	.	.
<i>Jungermannia</i> sp.	E0	.	.	.	+	.	.	.	.
<i>Mesoptychia collaris</i> (<i>Leiocolea collaris</i>)	E0	.	.	.	.	+	.	.	.
<i>Thamnobryum alopecurum</i>	E0	.	.	.	.	.	.	+	.
<i>Campylopus</i> sp.	E0	.	.	.	.	.	.	.	.
<i>Hypnum cupressiforme</i>	E0	.	.	.	.	.	.	.	.
<i>Didymodon insulanus</i>	E0	.	.	.	.	.	.	.	.
<i>Dichodontium flavescens</i>	E0	.	.	.	.	.	.	.	.
<i>Lophozia</i> sp.	E0	.	.	.	.	.	.	.	.
<i>Exertotheca crispa</i> (<i>Neckera crispa</i>)	E0	.	.	.	.	.	.	.	.
<i>Plagiurnium elatum</i>	E0	.	.	.	.	.	.	.	.
<i>Hylocomium splendens</i>	E0	.	.	.	.	.	.	.	.

Legend - Legenda

L Limestone - apnenec

Br Breccia - breča

Ch Chert - roženec

Co Conglomerate - konglomerat

D Dolomite - dolomit

Cl Claystone - glinavec

M Marlstone - laporovec

Li Lithosol - kamnišče

Pr. Presence (number of relevés in which the species is presented) - število popisov, v katerih se pojavlja vrsta

Fr. Frequency in % - frekvenca v %

10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	Pr.	Fr.
.	1	4
.	1	4
.	.	.	+	1	4
.	.	+	1	4
+	.	.	+	.	+	.	.	.	r	.	.	r	.	.	.	.	.	+	4	14
.	.	+	.	+	+	3	11
.	+	2	7
.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	4
+	+	4	14
.	1	4
.	1	4
.	1	4
.	+	1	4
+	1	.	1	.	1	3	2	.	1	.	+	1	2	.	.	.	.	+	16	57
.	1	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	4	18
.	2	.	.	.	.	.	3	11
.	1	.	+	1	.	.	.	.	.	.	3	11
.	2	7
.	1	4
.	1	4
.	1	4
.	1	4
.	1	4
.	1	4
.	1	4
.	1	4
.	1	4
.	1	4
.	1	4
.	1	4
.	1	4
.	1	4
.	1	4
.	1	4
.	1	4

Table 8 (Preglednica 8): *Veronico urticifoliae-Violetum biflorae*

Successive number of relevé (Zaporedna številka popisa)	1	2	3	4	5	6	7	8	9
Database number of relevé (Delovna številka popisa)	214787	261649	258818	227007	261072	280906	254912	260939	258819
Elevation in m (Nadmorska višina v m)	450	550	665	210	590	465	780	550	665
Aspect (Lega)	W	NW	W	NE	N	NW	NW	NW	NW
Slope in degrees (Nagib v stopinjah)	90	10	80	80	80	70	95	95	95
Parent material (Matična podlaga)	LM	Deb	DCh	D	D	D	DL	D	DCh
Soil (Tla)	Li	Li	Li	Li	Li	Li	Li	Li	Li
Stoniness in % (Kamnitost v %)	100	20	100	100	100	10	100	100	100
Cover of shrub layer in % (Zastiranje grmovne plasti v %):	.	.	.	.	.	.	.	.	.
Cover of herb layer in % (Zastiranje zeliščne plasti v %):	30	80	60	30	50	60	30	30	30
Cover of moss layer in % (Zastiranje mahovne plasti v %):	40	50	60	50	80	80	10	10	40
Number of species (Število vrst)	9	17	15	13	14	9	16	14	12
Relevé area (Velikost popisne ploskve)	m ² 10	10	5	5	10	2	10	10	5
Date of taking relevé (Datum popisa)	5/9/2001	5/28/2016	10/12/2015	5/14/2009	4/20/2016	5/4/2020	5/5/2014	4/15/2016	10/12/2015
Locality (Nahajališče)	Matevž-Idrija	Zakojska grapa	Zakojska grapa	Stopnik-Gašper	Idršek	Kozjek-Vrše	Možnica	Žirovnica-Raskovec	Zakojska grapa
Quadrant (Kvadrant)	9847/2	9849/2	9849/2	9949/1	9950/4	9948/2	9647/1	9950/4	9849/2
Coordinate GK Y (D-48)	m 396518	418209	418979	414534	429293	408556	389796	430428	418882
Coordinate GK X (D-48)	m 5114008	5114294	5114424	5105561	5096506	5105335	5138674	5096264	5114407
Diagnostic species of the association (Diagnostične vrste asociacije)									
AP <i>Viola biflora</i>	E1	1	3	2	3	3	4	3	2
MC <i>Conocephalum conicum</i>	E0	3	3	4	1	2	4	+	1
VP <i>Veronica urticifolia</i>	E1	1	+	+	.	1	.	r	+
AP <i>Astrantio carniolicae-Paederotium luteae</i>									
<i>Orthothecium rufescens</i>	E0	.	.	.	2	1	+	1	1
<i>Asplenium viride</i>	E1	.	.	.	.	+	+	1	+
<i>Hymenostylium recurvirostrum</i>	E0	.	.	1	.	.	.	.	1
<i>Palustriella commutata</i>	E0	.	1	.	.	.	.	.	.
<i>Cystopteris fragilis</i>	E1	.	.	.	.	.	.	+	+
<i>Carex brachystachys</i>	E1	.	.	.	.	.	.	+	+
<i>Apopellia endiviifolia (Pellia endiviifolia)</i>	E0	.	.	.	.	.	.	.	.
<i>Aster bellidiastrum</i>	E1	.	.	.	1	+	1	.	.
<i>Astrantia carniolica</i>	E1	.	.	.	.	.	.	+	.
<i>Valeriana tripteris</i>	E1	.	.	+	.	.	.	.	.
<i>Paederota lutea</i>	E1	.	.	.	1	.	+	+	.
<i>Fissidens dubius</i>	E0	.	.	.	.	.	.	.	.
<i>Jungermannia atrovirens</i>	E0	.	.	.	.	.	.	.	.
<i>Hydrogonium croceum (Barbula crocea)</i>	E0	.	.	.	.	.	.	.	.
<i>Pinguicula alpina</i>	E1	.	.	.	.	.	.	.	1
<i>Valeriana saxatilis</i>	E1	.	.	.	.	.	.	.	.
<i>Eucladium verticillatum</i>	E0	.	.	.	.	.	.	.	.
<i>Primula carniolica</i>	E1	.	.	.	.	.	.	.	.
PcSp <i>Physoplexido comosae-Saxifragion petraeae</i>									
<i>Campanula carnica</i>	E1	r	.	.	.	.	.	r	.
<i>Phyteuma scheuchzeri</i> subsp. <i>columnae</i>	E1	.	.	.	+	+	.	.	.

Successive number of relevé (Zaporedna številka popisa)		1	2	3	4	5	6	7	8	9
PC Potentilletalia caulescentis										
<i>Primula auricula</i>	E1	.	.	.	.	.	.	.	.	.
<i>Potentilla caulescens</i>	E1	.	.	.	.	.	.	.	.	.
AT Aspleneteta trichomanis										
<i>Asplenium trichomanes</i>	E1	+	+	.	.	.	.	1	+	.
<i>Asplenium ruta-muraria</i>	E1	.	.	.	.	.	.	.	.	.
<i>Kernea saxatilis</i>	E1	.	.	.	.	.	.	.	.	.
<i>Moehringia muscosa</i>	E1	.	.	.	.	.	.	.	.	.
TR Thlaspieteta trotundifolii										
<i>Adenostyles glabra</i>	E1	.	+	2	.	.	.	.	.	1
<i>Gymnocarpium robertianum</i>	E1	.	1	.	.	.	.	.	.	1
<i>Hieracium bifidum</i>	E1	.	.	.	.	.	.	r	.	.
<i>Trisetum argenteum</i>	E1	.	.	.	.	.	.	.	.	.
MC Montio-Cardamineteta										
<i>Oxyrrhynchium hians</i>	E0	.	.	.	.	.	.	.	.	.
<i>Oxyrrhynchium schleicheri</i>	E0	.	.	.	.	.	.	.	.	.
<i>Flexitrichum flexicaule</i> (<i>Ditrichum flexicaule</i>)	E0	.	.	.	.	.	.	.	.	.
<i>Rhynchostegium riparioides</i> (<i>Platyhypnidium riparioides</i>)	E0	.	.	.	1	.	.	.	.	.
<i>Fontinalis antipyretica</i> subsp. <i>antipyretica</i>	E0	.	.	.	+	.	.	.	.	.
<i>Cololejeunea calcarea</i>	E0	.	.	.	.	.	.	.	.	.
CD Caricetalia davallianae										
<i>Campylium stellatum</i>	E0	.	.	.	.	1	.	.	.	.
ES Elyno-Seslerieteta										
<i>Sesleria caerulea</i>	E1	.	.	.	.	.	.	.	.	+
<i>Carex ferruginea</i>	E1	.	.	.	.	.	.	.	.	.
Mo Molinion, Molino-Arrhenathereteta										
<i>Angelica sylvestris</i>	E1	.	.	.	.	.	.	.	.	.
<i>Caltha palustris</i>	E1	.	.	+	r	.	.	.	.	.
<i>Crepis paludosa</i>	E1	.	.	1	.	.	.	.	.	.
TG Trifolio-Geranieteta										
<i>Campanula rapunculoides</i>	E1	.	.	.	.	.	.	.	.	.
EA Epilobieteta angustifolii										
<i>Rubus idaeus</i>	E1	.	+	.	.	.	.	.	.	.
<i>Solanum dulcamara</i>	E1	.	.	.	.	.	.	.	.	.
MuA Mulgedio-Aconiteteta										
<i>Chaerophyllum hirsutum</i>	E1	.	.	2	+	.	.	.	.	.
<i>Saxifraga rotundifolia</i>	E1	.	.	+	.	r	.	.	.	.
<i>Senecio ovatus</i>	E1	.	.	.	.	.	.	.	.	.
<i>Thalictrum aquilegifolium</i>	E1	.	1	.	.	.	.	.	.	.
<i>Phyteuma ovatum</i>	E1	.	.	.	.	.	.	.	.	.
EP Erico-Pineteta										
<i>Calamagrostis varia</i>	E1	.	.	+	.	.	.	.	+	+
<i>Aquilegia nigricans</i>	E1	.	.	.	.	.	.	.	.	.
<i>Carex ornithopoda</i>	E1	r	.	.	.	.	.	.	.	.
<i>Rhodothamnus chamaecistus</i>	E1	.	.	.	.	.	.	+	.	.
<i>Carex alba</i>	E1	.	.	.	.	.	.	.	.	.
VP Vaccinio-Piceeteta										
<i>Oxalis acetosella</i>	E1	1	2	.	.	+	.	.	.	.
<i>Saxifraga cuneifolia</i>	E1	1	.	+	.	.	.	.	.	.
<i>Solidago virgaurea</i>	E1	.	.	.	.	.	.	.	.	.
<i>Clematis alpina</i>	E1	.	+	.	.	.	.	.	.	.
<i>Abies alba</i>	E1	.	.	.	.	.	.	.	.	.
<i>Homogyne sylvestris</i>	E1	.	.	.	.	.	.	.	.	.
AF Aremonio-Fagion										
<i>Lamium orvala</i>	E1	.	.	.	.	.	.	.	.	.
<i>Cardamine trifolia</i>	E1	.	.	.	.	+	.	.	.	.
<i>Anemone trifolia</i>	E1	.	+	.	.	.	.	.	.	.
<i>Cardamine enneaphyllos</i>	E1	.	.	.	.	.	+	.	.	.
<i>Cyclamen purpurascens</i>	E1	.	.	.	.	.	.	.	r	.
<i>Euphorbia carniolica</i>	E1	.	.	.	.	.	.	.	.	+
<i>Scopolia carniolica</i>	E1	.	.	.	.	.	.	.	.	.
<i>Omphalodes verna</i>	E1	.	.	.	.	.	.	.	.	.
<i>Primula vulgaris</i>	E1	.	.	.	.	.	.	.	.	.
TA Tilio-Acerion										
<i>Geranium robertianum</i>	E1	.	1	+	.	.	.	.	.	+

10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	Pr.	Fr.
.	1	1	.	.	.	.	.	.	2	8
.	.	.	+	1	4
+	+	r	.	.	l	+	+	l	.	.	+	+	.	.	l	14	56
.	+	.	.	.	+	r	.	.	.	.	.	3	12
.	.	.	+	1	4
.	+	1	4
.	.	+	r	.	.	l	+	+	+	.	.	.	l	l	2	12	48
.	.	.	.	+	+	+	.	.	5	20
.	+	.	.	.	l	.	.	.	3	12
.	r	.	.	.	+	2	8
l	l	.	.	.	.	.	.	.	+	.	.	.	.	+	l	5	20
l	.	.	+	+	3	12
.	+	1	4
.	1	4
.	1	4
.	+	1	4
+	2	8
.	.	.	+	.	.	l	.	.	.	.	.	l	.	.	.	4	16
.	r	.	.	.	.	.	1	4
.	+	+	r	.	.	3	12
.	2	8
.	+	2	8
+	.	+	+	3	12
.	1	4
.	+	1	4
.	l	+	l	+	.	.	.	.	.	.	6	24
.	l	.	.	.	.	r	4	16
.	r	.	.	.	r	.	.	.	.	+	3	12
.	+	.	.	2	8
.	.	.	.	+	1	4
.	+	+	.	.	.	r	.	.	l	l	+	9	36
.	.	+	+	+	3	12
.	1	4
.	1	4
.	.	.	+	1	4
.	r	.	.	1	4
+	.	r	.	.	.	.	.	.	.	.	.	.	.	.	+	3	12
.	+	.	.	2	8
.	1	4
.	1	4
.	1	4
.	1	4
.	l	.	.	1	4
.	+	.	1	4
.	r	.	1	4
+	+	.	+	l	.	.	.	.	.	.	.	.	+	.	+	9	36

Successive number of relevé (Zaporedna številka popisa)	1	2	3	4	5	6	7	8	9
<i>Aruncus dioicus</i>	E1	.	.	.	.	.	.	.	.
<i>Polystichum aculeatum</i>	E1	.	.	.	.	.	.	.	.
<i>Acer pseudoplatanus</i>	E2a	.	.	.	.	.	.	.	.
<i>Euonymus latifolia</i>	E2a	.	.	.	.	.	.	.	.
AI <i>Alnion incanae</i>									
<i>Festuca gigantea</i>	E1	.	.	+	.	.	.	.	.
FS <i>Fagetalia sylvaticae</i>									
<i>Galeobdolon flavidum</i>	E1	r	+	.	.	l	.	.	r
<i>Mycelis muralis</i>	E1	.	.	.	.	.	.	r	r
<i>Salvia glutinosa</i>	E1	.	.	.	.	.	.	.	.
<i>Actaea spicata</i>	E1	.	.	.	r	.	.	.	.
<i>Sambucus nigra</i>	E2a	.	.	.	.	.	.	.	.
<i>Mercurialis perennis</i>	E1	.	l	.	.	.	.	.	.
<i>Dryopteris filix-mas</i>	E1	.	r	.	.	.	.	.	.
<i>Phyteuma spicatum</i> subsp. <i>coeruleum</i>	E1	.	.	.	.	.	+	.	.
<i>Cardamine pentaphyllos</i>	E1	.	.	.	.	.	+	.	.
<i>Campanula trachelium</i>	E1	.	.	.	.	.	.	.	r
<i>Galium laevigatum</i>	E1	.	.	.	.	.	.	.	.
<i>Poa nemoralis</i>	E1	.	.	.	.	.	.	.	.
<i>Fagus sylvatica</i>	E2a	.	.	.	.	.	.	.	.
<i>Fraxinus excelsior</i>	E2a	.	.	.	.	.	.	.	.
<i>Lonicera alpigena</i>	E2a	.	.	.	.	.	.	.	.
<i>Petasites albus</i>	E1	.	.	.	.	.	.	.	.
<i>Daphne mezereum</i>	E2a	.	.	.	.	.	.	.	.
QP <i>Quercetalia pubescenti-petraeae</i>									
<i>Ostrya carpinifolia</i>	E1	.	.	.	.	.	.	.	.
<i>Euonymus verrucosa</i>	E2a	.	.	.	.	.	.	.	.
QF <i>Quercus-Fagetea</i>									
<i>Aegopodium podagraria</i>	E1	.	l	.	.	.	.	.	.
<i>Carex digitata</i>	E1	.	.	.	.	.	.	.	.
<i>Corylus avellana</i>	E2a	.	.	.	.	.	.	.	.
ML Mosses (Mahovi)									
<i>Mnium thomsonii</i>	E0	.	.	.	.	2	.	+	.
<i>Tortella tortuosa</i>	E0	.	.	.	.	.	.	.	.
<i>Plagiochila porelloides</i>	E0	.	.	.	.	+	.	.	.
<i>Exertotheca crispa</i> (<i>Neckera crispa</i>)	E0	.	.	.	.	.	.	+	.
<i>Pedinophyllum interruptum</i>	E0	.	.	.	.	.	.	.	.
<i>Ctenidium molluscum</i>	E0	.	.	.	.	.	.	.	.
<i>Plagiomnium rostratum</i>	E0	.	.	.	.	.	.	.	.
<i>Lophozia</i> sp.	E0	.	.	.	.	.	.	.	.
<i>Reboulia hemisphaerica</i>	E0	.	.	+	.	.	.	.	.
<i>Brachythecium rutabulum</i>	E0	.	.	.	l	.	.	.	.
<i>Dichodontium pellucidum</i>	E0	.	.	.	l	.	.	.	.
<i>Mnium lycopodioides</i>	E0	.	.	.	.	.	.	.	.
<i>Fissidens taxifolius</i>	E0	.	.	.	.	.	.	.	.
<i>Alleniella complanata</i> (<i>Neckera complanata</i>)	E0	.	.	.	.	.	.	.	.
<i>Ptychostomum capillare</i> (<i>Bryum capillare</i>)	E0	.	.	.	.	.	.	.	.
<i>Encalypta streptocarpa</i>	E0	.	.	.	.	.	.	.	.
<i>Amblystegium serpens</i>	E0	.	.	.	.	.	.	.	.
<i>Philonotis caespitosa</i>	E0	.	.	.	.	.	.	.	.
<i>Entodon concinnus</i>	E0	.	.	.	.	.	.	.	.

Legend - Legenda

L Limestone - apnenec

Ch Chert - roženec

D Dolomite - dolomit

Deb Debris - grušč

M Marlstone - laporvec

Li Lithosol - kamnišče

Pr. Presence (number of relevés in which the species is presented) - število popisov, v katerih se pojavlja vrsta

Fr. Frequency in % - frekvenca v %

 1-11 *Veronico urticifoliae-Violetum biflorae* var. *typica*

 12-15 *Veronico urticifoliae-Violetum biflorae* var. *Astrantia carniolica*

 16-25 *Veronico urticifoliae-Violetum biflorae* var. *Palustriella commutata*

 18-19 *Veronico urticifoliae-Violetum biflorae* var. *Palustriella commutata* subvar. *Primula auricula*

10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	Pr.	Fr.
.	.	.	+	+	+	r	.	.	+	.	.	.	+	+	.	7	28
.	.	+	1	4
.	+	.	.	1	4
.	+	.	.	1	4
.	1	4
.	.	.	.	+	.	.	.	+	+	.	.	.	1	+	2	10	40
.	+	+	+	.	r	.	.	.	.	.	6	24
.	+	.	+	+	+	.	.	+	.	.	5	20
.	+	.	.	.	2	8
.	+	.	+	2	8
.	1	4
.	1	4
.	1	4
.	1	4
.	1	4
.	r	.	.	.	.	.	.	.	.	.	1	4
.	+	.	.	.	1	4
.	+	.	.	1	4
.	+	.	.	1	4
.	+	.	.	1	4
.	+	.	.	1	4
+	1	4
.	+	.	1	4
.	1	4
.	.	.	r	.	.	.	.	.	.	.	.	.	.	.	.	1	4
.	+	.	.	1	4
.	1	.	.	.	.	.	.	.	.	.	.	3	12
.	.	.	.	+	+	+	.	.	3	12
.	+	2	8
.	+	2	8
+	+	2	8
+	.	.	.	+	2	8
.	+	+	.	.	2	8
.	.	.	.	1	1	.	.	.	.	.	.	.	.	.	.	2	8
.	1	4
.	1	4
.	1	4
1	1	4
+	1	4
+	1	4
.	+	1	4
.	1	.	.	.	.	.	.	.	.	.	.	1	4
.	+	.	1	4
.	1	1	4
.	+	1	4

Table 9 (Preglednica 9): *Paederoto luteae-Violetum biflorae*, *Cerastio subtriflorae-Violetum biflorae*

Successive number of relevé (Zaporedna številka popisa)	1	2	3	4	5	6	7	8	9	10		
Database number of relevé (Delovna številka popisa)	281817	281818	281819	281821	280538	282450	282905	286986	257739	282101		
Elevation in m (Nadmorska višina v m)	1000	1000	1000	1000	424	1850	1460	1330	1689	1850		
Aspect (Lega)	SW	SW	SW	SW	NE	NW	N	SE	NE	W		
Slope in degrees (Nagib v stopinjah)	90	90	90	100	80	30	90	85	1	45		
Parent material (Matična podlaga)	LM	LM	LM	LM	D	Li	Br	Li	Deb	Deb		
Soil (Tla)	Li	Li	Li	Li	Li	Li	Li	Li	Li	Li		
Stoniness in % (Kamnitost v %)	100	100	100	100	80	100	100	100	30	10		
Cover of herb layer in % (Zastiranje zeliščne plasti v %):	60	30	35	35	40	60	30	30	80	90		
Cover of moss layer in % (Zastiranje mahovne plasti v %):	40	40	30	20	80	50	60	20	40	60		
Number of species (Število vrst)	13	13	14	13	15	9	25	24	12	18		
Relevé area (Velikost popisne ploskve)	m ² 10	10	10	10	4	4	10	20	3	2		
Date of taking relevé (Datum popisa)	6/29/2020	6/29/2020	6/29/2020	6/29/2020	4/27/2020	7/14/2020	10/9/2020	8/19/2021	8/7/2015	7/29/2020		
Locality (Nahajališče)	Drežniške Ravne-Curk	Drežniške Ravne-Curk	Drežniške Ravne-Curk	Drežniške Ravne-Curk	Kozjiška grapa-Irebusa	Mangart	Apica- Lope	Gozdec	Lopučnica	Mangart		
Quadrant (Kvadrant)	9747/2	9747/2	9747/2	9747/2	9948/2	9547/4	9648/1	9646/4	9648/4	9547/4		
Coordinate GK Y (D-48)	m 395259	395250	395241	395217	408624	395771	399169	383688	405543	395797		
Coordinate GK X (D-48)	m 5126193	5126194	5126199	5126198	5105358	5144632	5138191	5133742	5130335	5144545		
Diagnostic species of syntaxa (Diagnostične vrste sintaksonov)												
AP <i>Viola biflora</i>	E1	2	1	3	1	3	3	2	2	4	Pr. 4	Fr. 10
AP <i>Paederota lutea</i>	E1	2	2	.	+	.	+	1	1	+	.	70
TR <i>Trisetum argenteum</i>	E1	1	1	+	+	.	.	.	.	.	.	40
MC <i>Saxifraga aizoides</i>	E1	2	1	+	.	.	.	.	.	.	.	30
AP <i>Marchantia quadrata (Preissia quadrata)</i>	E0	1	1	1	.	.	.	.	.	.	.	30
MuA <i>Saxifraga rotundifolia</i>	E1	.	.	.	.	1	.	.	.	.	.	10
AP <i>Cystopteris fragilis</i>	E1	.	.	.	.	.	2	3	.	.	.	30
MC <i>Conocephalum conicum</i>	E0	.	.	.	+	.	3	2	.	.	.	30
PcSp <i>Campanula carnica</i>	E1	.	.	.	+	.	.	.	1	.	.	20
AF <i>Cyclamen purpurascens</i>	E1	.	.	.	.	.	.	.	1	.	.	10
AP <i>Heliosperma pusillum</i>	E1	.	.	.	.	.	.	1	.	1	+	30
AC <i>Saxifraga sedoides</i>	E1	.	.	.	.	.	.	.	3	.	.	10
TR <i>Cystopteris montana</i>	E1	.	.	.	.	.	.	+	1	.	.	20
TR <i>Festuca nitida</i>	E1	.	.	.	.	.	.	+	.	1	.	20
AC <i>Sanionia uncinata</i>	E0	.	.	.	.	.	.	.	.	3	.	10
AC <i>Doronicum glaciale</i>	E1	.	.	.	.	.	.	.	.	2	.	10
ES <i>Cerastium subtriflorum</i>	E1	.	.	.	.	.	.	.	.	1	.	10
AP <i>Astrantio carniolicae-Paederotion luteae</i>												
<i>Palustriella commutata</i>	E0	2	1	1	.	1	.	1	.	.	2	60
<i>Hymenostylium recurvirostrum</i>	E0	2	1	3	1	4	.	.	.	.	.	50
<i>Aster bellidiastrum</i>	E1	2	1	2	.	.	.	1	.	.	.	40
<i>Carex brachystachys</i>	E1	1	+	+	.	.	.	.	+	.	.	40
<i>Orthothecium rufescens</i>	E0	.	.	.	+	+	.	1	.	2	.	40
<i>Apopellia endiviifolia (Pellia endiviifolia)</i>	E0	+	.	1	1	.	.	.	+	.	.	40
<i>Fissidens dubius</i>	E0	.	.	.	.	+	.	+	.	.	.	20
<i>Asplenium viride</i>	E1	.	.	.	.	.	.	+	.	.	+	20

Successive number of relevé (Zaporedna številka popisa)	1	2	3	4	5	6	7	8	9	10	Pr.	Fr.	
<i>Valeriana saxatilis</i>	E1	+	.	.	.	.	.	.	.	.	1	10
<i>Astrantia carniolica</i>	E1	.	.	.	1	.	.	.	.	.	1	10
<i>Pinguicula alpina</i>	E1	.	.	.	.	.	+	.	.	.	1	10
<i>Valeriana tripteris</i>	E1	.	.	.	.	.	.	+	.	.	1	10
PcSp Physoplexido comosae-Saxifragion petraeae													
<i>Moehringia villosa</i>	E1	+	.	.	.	.	.	.	.	.	1	10
PcSp Potentiletalia caulescentis													
<i>Saxifraga crustata</i>	E1	.	+	.	r	.	.	.	.	.	2	20
AT Asplenietea trichomanis													
<i>Asplenium trichomanes</i>	E1	.	+	.	1	.	.	+	.	.	3	30	
<i>Asplenium ruta-muraria</i>	E1	.	.	.	.	.	.	1	.	.	1	10
<i>Moehringia muscosa</i>	E1	.	.	.	.	.	.	+	.	.	1	10
TR Thlaspietea trotundifolii													
<i>Adenostyles glabra</i>	E1	+	.	+	.	.	.	+	.	.	3	30	
MC Montio-Cardaminetea													
<i>Oxyrrhynchium schleicheri</i>	E0	.	.	.	.	+	.	+	.	.	2	20
<i>Flexitrichum flexicaule (Ditrichum flexicaule)</i>	E0	1	.	.	+	2	20
<i>Oxyrrhynchium hians</i>	E0	.	.	.	.	+	.	.	.	.	1	10
<i>Ptychostomum pseudotriquetrum (Bryum pseudotriquetrum)</i>	E0	.	.	.	.	.	.	.	.	+	1	10
CD Caricetalia davallianae													
<i>Campyllum stellatum</i>	E0	+	.	.	+	2	20
<i>Parnassia palustris</i>	E1	.	.	.	.	.	.	.	.	+	1	10
ES Elyno-Seslerietea													
<i>Erigeron glabratus</i>	E1	.	.	.	+	.	.	.	.	.	1	10
<i>Sesleria caerulea</i>	E1	.	.	.	.	.	.	+	.	.	1	10
<i>Polygonum viviparum</i>	E1	.	.	.	.	.	.	.	.	+	1	10
Mo Molinion													
<i>Caltha palustris</i>	E1	.	.	.	.	+	.	.	.	.	1	10
MuA Mulgedio-Aconitetea													
<i>Ranunculus platanifolius</i>	E1	.	.	.	.	.	.	+	.	.	1	10
EP Erico-Pinetea													
<i>Calamagrostis varia</i>	E1	.	.	+	.	.	.	.	+	+	3	30
VP Vaccinio-Piceetea													
<i>Veronica urticifolia</i>	E1	.	.	r	.	.	.	1	.	.	2	20	
<i>Dryopteris expansa</i>	E1	.	.	.	.	.	.	+	.	.	1	10
AF Aremonio-Fagion													
<i>Cardamine enneaphyllos</i>	E1	.	.	.	.	+	.	.	.	.	1	10
<i>Lamium orvala</i>	E1	.	.	.	.	+	.	.	.	.	1	10
TA Tilio-Acerion													
<i>Geranium robertianum</i>	E1	.	+	r	+	+	.	.	.	.	4	40
FS Fagetalia sylvaticae													
<i>Salvia glutinosa</i>	E1	.	+	+	+	.	.	.	.	.	3	30
<i>Cardamine pentaphyllos</i>	E1	.	.	.	.	+	.	.	.	.	1	10
<i>Mycelis muralis</i>	E1	.	.	.	.	+	.	.	.	.	1	10
<i>Galeobdolon flavidum</i>	E1	.	.	.	.	.	.	.	+	.	1	10
ML Mosses (Mahovi)													
<i>Mnium marginatum</i>	E0	.	.	.	.	.	1	+	.	+	3	30
<i>Tortella tortuosa</i>	E0	.	.	.	.	.	.	1	+	.	2	20
<i>Plagiomnium rostratum</i>	E0	.	.	.	.	.	3	.	.	.	1	10
<i>Brachythecium tenuicaule</i>	E0	.	.	.	.	.	.	+	.	.	1	10
<i>Pedinophyllum interruptum</i>	E0	.	.	.	.	.	.	+	.	.	1	10
<i>Pohlia wahlenbergii</i>	E0	.	.	.	.	.	.	+	.	.	1	10
<i>Campylophyllum halleri</i>	E0	.	.	.	.	.	.	1	.	.	1	10
<i>Didymodon fallax</i>	E0	.	.	.	.	.	.	1	.	.	1	10
<i>Lophozia sp.</i>	E0	.	.	.	.	.	.	1	.	.	1	10
<i>Mnium thomsonii</i>	E0	.	.	.	.	.	.	1	.	.	1	10
<i>Aneura pinguis</i>	E0	.	.	.	.	.	.	.	+	.	1	10
<i>Rhynchostegium murale</i>	E0	.	.	.	.	.	.	.	+	.	1	10
<i>Isoetecium alopecuroides</i>	E0	.	.	.	.	.	.	.	1	.	1	10
<i>Anomodon viticulosus</i>	E0	.	.	.	.	.	.	.	+	.	1	10
<i>Encalypta streptocarpa</i>	E0	.	.	.	.	.	.	.	+	.	1	10
<i>Exerthoeca crispa (Neckera crispa)</i>	E0	.	.	.	.	.	.	.	+	.	1	10
<i>Schistidium apocarpum</i>	E0	.	.	.	.	.	.	.	+	.	1	10

Successive number of relevé (Zaporedna številka popisa)	1	2	3	4	5	6	7	8	9	10	Pr.	Fr.
<i>Dermatocarpon miniatum</i>	E0	.	.	.	.	.	.	+	.	.	1	10
<i>Plagiochila asplenioides</i>	E0	.	.	.	.	.	.	.	2	.	1	10
<i>Ctenidium molluscum</i>	E0	.	.	.	.	.	.	.	1	.	1	10
<i>Scapania nemorea</i>	E0	.	.	.	.	.	.	.	1	.	1	10
<i>Climacium dendroides</i>	E0	.	.	.	.	.	.	.	.	1	1	10
<i>Pohlia cruda</i>	E0	.	.	.	.	.	.	.	.	+	1	10
<i>Polytrichastrum alpinum</i>	E0	.	.	.	.	.	.	.	.	+	1	10
<i>Timmia austriaca</i>	E0	.	.	.	.	.	.	.	.	+	1	10
<i>Tritomaria quinquedentata</i>	E0	.	.	.	.	.	.	.	.	+	1	10
<i>Barbilophozia hatcheri</i>	E0	.	.	.	.	.	.	.	.	+	1	10

Legend - Legenda

L Limestone - apnenec

Br Breccia - breča

D Dolomite - dolomit

Deb Debris - grušč

M Marstone - laporovec

Li Lithosol - kamnišče

Pr. Presence (number of relevés in which the species is presented) - število popisov, v katerih se pojavlja vrsta

Fr. Frequency in % - frekvenca v %

1-8 *Paederoto luteae-Violetum biflorae* nom. prov.

9 *Cerastio subtriflorae-Violetum biflorae*

Table 10 (Preglednica 10): *Asplenietea trichomanis* Liščak

Successive number of relevé (Zaporedna številka popisa)	1	3	2	4	5	6	7	8	9	10	11
Database number of relevé (Delovna številka popisa)	281771	287144	273219	269623	287132	277661	285257	285258	282691	282699	287176
Elevation in m (Nadmorska višina v m)	770	945	1060	1105	1090	410	560	555	530	525	350
Aspect (Lega)	S	SW	W	SW	SSW	SW	SSE	SSE	NW	N	NW
Slope in degrees (Nagib v stopinjah)	80	90	80	90	90	80	95	95	60	80	70
Parent material (Matična podlaga)	L	LCiCh	L	L	LR	LM	LCi	LCi	LCh	LCh	LMCh
Soil (Tla)	Li	Li	Li	Li	Li	Li	Li	Li	Li	Li	Li
Stoniness in % (Kamnitost v %)	100	100	80	100	100	100	100	100	100	100	100
Cover of herb layer in % (Zastiranje zeliščne plasti v %):	30	20	40	20	30	70	30	20	40	40	40
Cover of moss layer in % (Zastiranje mahovne plasti v %):	5	5	10	5	5	5	5	5	30	40	20
Number of species (Število vrst)	10	10	19	13	17	25	13	4	20	37	24
Relevé area (Velikost popisne ploskve)	m ²	10	20	10	10	20	10	10	10	15	20
Date of taking relevé (Datum popisa)	6/24/2020	8/10/2021	9/18/2018	6/9/2017	8/10/2021	6/26/2019	4/8/2021	4/8/2021	9/15/2020	9/15/2020	6/18/2021
Locality (Nahajališče)	Liščak-Sopot	Liščak povirje	Liščak-Mlečni rob	Liščak-Grantarska poljana	Liščak-Grantarska poljana	Liščak-Drsele	Liščak-Lisec	Liščak	Liščak	Liščak	Liščak
Quadrant (Kvadrant)	9749/3	9749/3	9849/1	9749/3	9749/3	9849/1	9749/3	9749/3	9849/1	9849/1	9849/1
Coordinate GK Y (D-48)	m	411710	411754	412219	412053	412042	411154	411533	411539	411374	411406
Coordinate GK X (D-48)	m	5118614	5118936	5116788	5118969	5118972	5117371	5118070	5118072	5117858	5117910
Diagnostic species of syntaxa (Diagnostične vrste sintaksonov)											
AT <i>Sedum album</i>	E1	1	+	1	1	3	.	.	.	.	5
ES <i>Sesleria caerulea</i>	E1	1	1	3	.	.	.	.	+	.	4
PcSp <i>Campanula carnica</i>	E1	1	.	.	.	1	.	.	.	.	2
PcSp <i>Silene hayekiana</i>	E1	+	.	.	.	.	.	.	.	.	1
TR <i>Arabis alpina</i>	E1	.	.	.	+	+	.	.	.	.	2
AT <i>Asplenium trichomanes</i>	E1	+	+	+	+	+	2	3	2	2	10
AP <i>Fissidens dubius</i>	E0	+	.	.	.	.	.	+	.	1	5
FS <i>Galeobdolon flavidum</i>	E1	.	.	.	.	.	.	.	.	1	3
AP <i>Valeriana tripteris</i>	E1	.	.	.	.	.	.	.	+	1	2
TA <i>Phyllitis scolopendrium</i>	E1	.	.	.	.	.	.	.	.	.	2
AP <i>Palustriella commutata</i>	E0	.	.	.	.	.	.	.	.	.	1
PsSp <i>Physoplexido comosae-Saxifragion petraeae</i>											
<i>Athamanta turbith</i>	E1	.	.	1	.	.	.	.	.	.	1
AP <i>Astrantio carnioicae-Paederotion luteae</i>											
<i>Cystopteris fragilis</i>	E1	.	.	.	1	+	.	.	.	+	3
<i>Carex brachystachys</i>	E1	.	.	.	.	.	+	.	.	+	2
<i>Orthothecium rufescens</i>	E0	.	.	.	.	.	.	+	.	1	2
<i>Eucladium verticillatum</i>	E0	.	.	.	.	.	.	+	.	.	1
<i>Asplenium viride</i>	E1	.	.	.	.	.	.	.	.	1	1
<i>Hydrogonium croceum (Barbula crocea)</i>	E0	.	.	.	.	.	.	.	.	+	1
<i>Hymenostylium recurvirostrum</i>	E0	.	.	.	.	.	.	.	.	+	1
<i>Apopellia endiviifolia (Pellia endiviifolia)</i>	E0	.	.	.	.	.	.	.	.	+	1
<i>Jungermannia atrovirens</i>	E0	.	.	.	.	.	.	.	.	+	1

Successive number of relevé (Zaporedna številka popisa)		1	3	2	4	5	6	7	8	9	10	11	Pr.	
AT	Aspleneteta trichomanis													
	<i>Asplenium ruta-muraria</i>	E1	.	.	+	+	+	.	.	.	+	.	4	
	<i>Polypodium vulgare</i>	E1	.	.	+	.	.	.	.	.	.	.	1
	<i>Festuca stenantha</i>	E1	.	.	.	r	.	.	.	.	.	.	1
	<i>Moehringia muscosa</i>	E1	.	.	.	.	.	+	.	.	.	.	1
TR	Thlaspieteta rotundifolii													
	<i>Gymnocarpium robertianum</i>	E1	.	.	.	.	+	.	.	.	+	.	2
	<i>Achnatherum calamagrostis</i>	E1	.	+	.	.	.	.	.	.	.	.	1
	<i>Hieracium bifidum</i>	E1	.	.	.	.	+	.	.	.	.	.	1
	<i>Adenostyles glabra</i>	E1	.	.	.	.	.	.	.	.	1	.	1
MC	Montio-Cardamineteta													
	<i>Conocephalum conicum</i>	E0	.	.	.	.	+	+	.	.	+	.	3
	<i>Gymnostomum aeruginosum</i>	E0	.	1	.	.	+	.	.	.	.	.	2
	<i>Oxyrrhynchium hians</i>	E0	.	.	.	.	.	.	.	.	1	+	2
	<i>Oxyrrhynchium schleicheri</i>	E0	.	.	.	.	.	+	.	.	.	.	1
	<i>Brachythecium rivulare</i>	E0	.	.	.	.	.	.	.	1	.	.	1
	<i>Cololejeunea calcarea</i>	E0	.	.	.	.	.	.	.	.	1	.	1
ES	Elyno-Seslerieteta													
	<i>Festuca calva</i>	E1	.	.	.	+	1	.	.	.	.	.	2
	<i>Erigeron glabratus</i>	E1	.	.	+	.	.	.	.	.	.	.	1
FB	Festuco-Brometeta													
	<i>Dianthus monspessulanus</i>	E1	.	+	+	.	+	.	.	.	.	.	3
	<i>Allium carinatum</i> subsp. <i>pulchellum</i>	E1	.	.	+	.	.	.	.	.	.	.	1
	<i>Thymus praecox</i>	E1	.	.	+	.	.	.	.	.	.	.	1
	<i>Bromopsis erecta</i>	E1	.	.	.	.	r	.	.	.	.	.	1
	<i>Bupthalmum salicifolium</i>	E1	.	.	.	.	.	.	.	.	+	.	1
TG	Trifolio-Geranieteta													
	<i>Campanula rapunculoides</i>	E1	r	+	.	.	.	+	+	.	.	.	4	
	<i>Digitalis grandiflora</i>	E1	.	.	.	.	.	+	.	.	.	.	1
	<i>Hypericum perforatum</i>	E1	.	.	.	.	.	+	.	.	.	.	1
	<i>Laserpitium latifolium</i>	E1	+	.	.	.	.	.	.	.	.	.	1
	<i>Libanotis daucifolia</i>	E1	+	.	.	.	.	.	.	.	.	.	1
	<i>Silene nutans</i>	E1	.	+	.	.	.	.	.	.	.	.	1
	<i>Achillea distans</i>	E1	.	.	.	.	+	.	.	.	.	.	1
Mo	Molinion													
	<i>Angelica sylvestris</i>	E1	.	.	.	.	.	.	.	.	.	+	1
EP	Erico-Pineteta													
	<i>Calamagrostis varia</i>	E1	r	.	.	.	+	2
EA	Epilobieteta angustifolii													
	<i>Rubus idaeus</i>	E1	.	.	.	.	+	.	.	.	.	.	1
	<i>Bromopsis benekenii</i>	E1	.	.	.	.	.	+	.	.	.	.	1
MuA	Mulgedio-Aconiteteta													
	<i>Senecio ovatus</i>	E1	.	.	.	.	+	.	.	.	1	+	3
	<i>Aconitum angustifolium</i>	E1	.	.	.	.	.	.	.	.	.	+	1
VP	Vaccinio-Piceeteta													
	<i>Oxalis acetosella</i>	E1	.	.	.	.	.	.	.	+	+	+	4
	<i>Veronica urticifolia</i>	E1	+	.	.	.	.	.	.	.	.	+	2
	<i>Solidago virgaurea</i>	E1	.	.	.	.	.	.	.	.	.	+	1
AF	Aremonio-Fagion													
	<i>Cardamine trifolia</i>	E1	.	.	.	.	.	.	.	.	+	1	2
	<i>Cyclamen purpurascens</i>	E1	.	.	.	.	.	.	.	+	+	.	2
TA	Tilio-Acerion													
	<i>Geranium robertianum</i>	E1	.	.	.	+	+	+	.	.	.	.	3
	<i>Tephrosieris pseudocrispa</i>	E1	.	.	.	.	.	+	.	.	1	.	2
	<i>Polystichum setiferum</i>	E1	.	.	.	.	.	+	.	.	.	1	2
	<i>Acer pseudoplatanus</i>	E1	.	.	.	.	.	.	.	.	.	+	1
	<i>Aruncus dioicus</i>	E1	.	.	.	.	.	.	.	.	.	+	1
	<i>Polystichum aculeatum</i>	E1	.	.	.	.	.	.	.	.	.	+	1
FS	Fagetalia sylvaticae													
	<i>Salvia glutinosa</i>	E1	.	+	.	+	+	+	.	.	1	+	6	
	<i>Galium laevigatum</i>	E1	.	.	.	.	.	+	.	.	.	+	3
	<i>Poa nemoralis</i>	E1	.	.	.	+	.	1	.	.	.	.	2

Successive number of relevé (Zaporedna številka popisa)		1	3	2	4	5	6	7	8	9	10	11	Pr.
<i>Asarum europaeum</i> subsp. <i>caucasicum</i>	E1	.	.	.	.	.	+	.	.	.	+	.	2
<i>Fagus sylvatica</i>	E1	.	.	.	+	.	.	.	.	.	.	.	1
<i>Myosotis sylvatica</i>	E1	.	.	.	+	.	.	.	.	.	.	.	1
<i>Brachypodium sylvaticum</i>	E1	.	.	.	.	.	+	.	.	.	.	.	1
<i>Campanula trachelium</i>	E1	.	.	.	.	.	+	.	.	.	.	.	1
<i>Circaea lutetiana</i>	E1	.	.	.	.	.	+	.	.	.	.	.	1
<i>Dryopteris filix-mas</i>	E1	.	.	.	.	.	+	.	.	.	.	.	1
<i>Mycelis muralis</i>	E1	.	.	.	.	.	+	.	.	.	.	.	1
<i>Petasites albus</i>	E1	.	.	.	.	.	.	.	.	.	.	+	1
QP <i>Quercetalia pubescenti-petraeae</i>													
<i>Sesleria autumnalis</i>	E1	.	.	.	.	.	.	.	.	+	+	.	2
<i>Primula veris</i> subsp. <i>columnnae</i>	E1	.	.	.	+	.	.	.	.	.	.	.	1
<i>Arabis turrata</i>	E1	.	.	.	.	.	+	.	.	.	.	.	1
<i>Fraxinus ornus</i>	E1	.	.	.	.	.	.	.	.	.	.	+	1
QP <i>Quercio-Fagetia</i>													
<i>Hedera helix</i>	E1	.	.	.	.	.	+	.	.	+	.	+	3
<i>Carex digitata</i>	E1	.	.	.	.	.	.	.	.	1	+	.	2
<i>Vinca minor</i>	E1	.	.	.	.	.	.	r	.	.	.	.	1
<i>Taxus baccata</i>	E2a	.	.	.	.	.	.	.	.	+	.	.	1
<i>Hepatica nobilis</i>	E1	.	.	.	.	.	.	.	.	.	.	+	1
<i>Veratrum nigrum</i>	E1	.	.	.	.	.	.	.	.	.	.	+	1
ML Mosses (Mahovi)													
<i>Ctenidium molluscum</i>	E0	.	.	.	.	.	.	.	+	1	1	1	4
<i>Isoetecium alopecuroides</i>	E0	.	1	.	.	.	.	.	.	1	.	1	3
<i>Tortella tortuosa</i>	E0	.	.	1	.	.	1	+	.	.	.	.	3
<i>Mnium marginatum</i>	E0	.	.	.	.	.	.	+	.	1	1	1	4
<i>Plagiomnium rostratum</i>	E0	.	.	.	.	.	.	.	.	+	1	.	2
<i>Homalothecium lutescens</i>	E0	.	.	1	.	.	.	.	.	.	.	.	1
<i>Schistidium apocarpum</i>	E0	.	.	1	.	.	.	.	.	.	.	.	1
<i>Encalypta streptocarpa</i>	E0	.	.	.	1	.	.	.	.	.	.	.	1
<i>Anomodon viticulosus</i>	E0	.	.	.	.	1	.	.	.	.	.	.	1
<i>Chionoloma tenuirostre</i> (<i>Oxystegus tenuirostre</i>)	E0	.	.	.	.	.	.	+	.	.	.	.	1
<i>Didymodon insulanus</i>	E0	.	.	.	.	.	.	.	.	.	.	+	1
<i>Rhynchostegium murale</i>	E0	.	.	.	.	.	.	.	.	.	.	+	1
<i>Plagiomnium undulatum</i>	E0	.	.	.	.	.	.	.	.	.	.	1	1
<i>Thamnobryum alopecurum</i>	E0	.	.	.	.	.	.	.	.	.	.	1	1
<i>Exertotheca crispa</i> (<i>Neckera crispa</i>)	E0	.	.	.	.	.	.	.	.	.	.	+	1
<i>Plagiochila porelloides</i>	E0	.	.	.	.	.	.	.	.	.	.	+	1

Legend - Legenda

 1 *Sileno hayekiana*-*Campanuletum carnicae* nom. prov.

 2-3 *Seslerio caeruleae-Sedetum albi* nom. prov.

 4-5 *Arabido alpinae-Sedetum albi* nom. prov.

 6-8 *Tortello tortuosae-Asplenietum trichomanis* nom. prov.

 9-10 *Valeriano tripteridis-Veronicetum urticifoliae* nom. prov.

 11 *Palustriello commutati-Phyllitidetum scolopendrii* nom. prov.

L Limestone - apnec

Ch Chert - roženec

Cl Claystone - glinavec

M Marlstone - laporovec

Li Lithosol - kamnišče

Pr. Presence (number of relevés in which the species is presented) - število popisov, v katerih se pojavlja vrsta

Fr. Frequency in % - frekvenca v %

Table 11: Communities of moist rock crevices in NW and W Slovenia
Preglednica 11: Združbe vlažnih skalnih razpok v severozahodni in zahodni Sloveniji

Successive number (Zaporedna številka)	1	2	3	4	5	6	7	8
Number of relevés (Število popisov)	14	18	18	25	10	33	28	10
Sign for syntaxa (Oznaka sintaksonov)	AcPa	PcAc	VbAc	VuVb	PcVu	VuSc	CvAb	CsSaac
Number of species (Število vrst)	55	78	101	119	72	112	138	53
<i>Astrantio carniolicae-Paederotium luteae</i>								
<i>Pinguicula alpina</i>	E1	100	28	22	4	.	4	.
<i>Hymenostylium recurvirostrum</i>	E0	100	67	38	48	50	6	14
<i>Palustriella commutata</i>	E0	100	83	38	48	100	22	7
<i>Aster bellidiastrum</i>	E1	86	28	61	32	.	6	100
<i>Astrantia carniolica</i>	E1	71	100	100	24	20	3	4
<i>Apopellia endiviifolia (Pellia endiviifolia)</i>	E0	57	56	11	32	60	9	18
<i>Carex brachystachys</i>	E1	50	61	78	40	10	12	11
<i>Orthothecium rufescens</i>	E0	43	50	89	76	10	12	.
<i>Eucladium verticillatum</i>	E0	43	28	.	4	10	6	4
<i>Tofieldia calyculata</i>	E1	36	17	17	.	.	.	7
<i>Valeriana tripteris</i>	E1	29	11	17	24	30	39	18
<i>Marchantia quadrata (Preissia quadrata)</i>	E0	21	5	22	.	.	.	4
<i>Fissidens dubius</i>	E0	14	17	33	20	40	55	4
<i>Hydrogonium croceum (Barbula crocea)</i>	E0	14	33	17	12	.	9	18
<i>Jungermannia atrovirens</i>	E0	14	6	.	16	.	3	14
<i>Valeriana saxatilis</i>	E1	7	22	44	4	.	.	4
<i>Saxifraga aizoides</i>	E1	7	.	.	.	.	.	.
<i>Paederota lutea</i>	E1	.	22	67	24	10	3	14
<i>Asplenium viride</i>	E1	.	17	72	64	10	6	.
<i>Viola biflora</i>	E1	.	.	100	100	.	3	4
<i>Heliosperma pusillum</i>	E1	.	.	39	.	.	.	.
<i>Cystopteris fragilis</i>	E1	.	.	33	44	20	15	11
<i>Cystopteris regia</i>	E1	.	.	33	.	.	.	.
<i>Cyrtomnium hymenophylloides</i>	E0	.	.	11	.	.	.	.
<i>Primula carniolica</i>	E1	.	.	.	4	.	.	.
<i>Selaginella helvetica</i>	E1	.	.	.	.	.	.	14
<i>Physoplexido comosae-Saxifragion petraeae</i>								
<i>Campanula cespitosa</i>	E1	29	.	6	.	.	.	21
<i>Hieracium porrifolium</i>	E1	7	6	6	.	.	.	14
<i>Hieracium pospichalii</i>	E1	.	6	.	.	.	.	21
<i>Campanula zoysii</i>	E1	.	.	17	.	.	.	4
<i>Campanula carnica</i>	E1	.	.	11	12	30	3	14
<i>Phyteuma scheuchzeri subsp. columnae</i>	E1	.	.	6	12	.	18	4
<i>Saxifraga petraea</i>	E1	.	.	.	.	.	18	.
<i>Athamanta turbith</i>	E1	.	.	.	.	.	.	11
<i>Micromeria thymifolia</i>	E1	.	.	.	.	.	.	7
<i>Potentilletalia caulescentis</i>								
<i>Saxifraga crustata</i>	E1	7	6	.	.	10	3	.
<i>Campanula cochleariifolia</i>	E1	.	.	33	.	.	.	.
<i>Arabis stellulata</i>	E1	.	.	22	.	.	.	.
<i>Primula auricula</i>	E1	.	.	22	8	.	.	.
<i>Potentilla caulescens</i>	E1	.	.	11	4	.	.	4
<i>Hieracium humile</i>	E1	.	.	6	.	.	.	.
<i>Potentilla clusiana</i>	E1	.	.	6	.	.	.	.
<i>Festuca stenantha</i>	E1	.	.	.	.	.	.	7
<i>Saxifraga hostii</i>	E1	.	.	.	.	.	.	7
<i>Asplenietea trichomanis</i>								
<i>Asplenium ruta-muraria</i>	E1	21	6	28	12	30	21	14
<i>Asplenium trichomanes</i>	E1	14	28	17	56	100	97	11
<i>Kerneria saxatilis</i>	E1	.	6	6	4	.	.	.
<i>Polypodium interjectum</i>	E1	.	6	.	.	.	.	.
<i>Moehringia muscosa</i>	E1	.	.	6	4	.	27	.
<i>Polypodium vulgare</i>	E1	.	.	.	.	.	6	.
<i>Sedum album</i>	E1	.	.	.	.	.	3	.
<i>Sedum hispanicum</i>	E1	.	.	.	.	.	3	.
<i>Ceterach javorkeanum</i>	E1	.	.	.	.	.	3	.

Successive number (Zaporedna številka)		1	2	3	4	5	6	7	8
Thlaspietea rotundifolii									
<i>Hieracium bifidum</i>	E1	50	17	22	12	10	18	36	30
<i>Petasites paradoxus</i>	E1	43	6	6	.	.	.	21	10
<i>Adenostyles glabra</i>	E1	29	44	67	48	50	6	11	10
<i>Gymnocarpium robertianum</i>	E1	.	6	22	20	10	.	11	.
<i>Achnatherum calamagrostis</i>	E1	.	6	.	.	.	.	14	100
<i>Peucedanum verticillare</i>	E1	.	6	.	.	.	.	7	.
<i>Soldanella minima</i>	E1	.	.	17	.	.	.	4	.
<i>Hieracium bifidum</i>	E1	.	.	22	.	.	.	.	.
<i>Gypsophila repens</i>	E1	.	.	11	.	.	.	.	.
<i>Festuca nitida</i>	E1	.	.	11	.	.	.	.	.
<i>Cystopteris montana</i>	E1	.	.	11	.	.	.	.	.
<i>Saxifraga caesia</i>	E1	.	.	6	.	.	.	.	.
<i>Arabis alpina</i>	E1	.	.	6	.	.	.	.	.
<i>Athamanta cretensis</i>	E1	.	.	6	.	.	.	.	.
<i>Biscutella laevigata</i>	E1	.	.	6	.	.	.	.	.
<i>Cerastium carinthiacum</i>	E1	.	.	6	.	.	.	.	.
<i>Trisetum argenteum</i>	E1	.	.	6	8	.	.	21	30
<i>Hieracium glaucum</i>	E1	.	.	.	.	.	.	7	90
<i>Poa compressa</i>	E1	.	.	.	.	.	.	7	.
<i>Centaurea dichroantha</i>	E1	.	.	.	.	.	.	4	.
<i>Hieracium piloselloides</i>	E1	.	.	.	.	.	.	4	.
<i>Hieracium dollineri</i>	E1	.	.	.	.	.	.	.	10
Montio-Cardaminetea									
<i>Conocephalum conicum</i>	E0	14	56	44	100	100	42	25	.
<i>Aneura pinguis</i>	E0	7	.	.	.	.	.	4	.
<i>Oxyrrhynchium hians</i>	E0	.	22	.	20	40	21	4	.
<i>Cratoneuron filicinum</i>	E0	.	17	11	.	10	3	7	.
<i>Brachythecium rivulare</i>	E0	.	17	.	.	20	.	25	.
<i>Ptychostomum pseudotriquetrum (Bryum pseudotriquetrum)</i>	E0	.	11	6	.	.	.	.	.
<i>Oxyrrhynchium schleicheri</i>	E0	.	6	6	12	40	.	.	.
<i>Rhynchostegium riparioides (Platyhypnidium riparioides)</i>	E0	.	6	.	4	20	.	.	.
<i>Gymnostomum aeruginosum</i>	E0	.	6	.	.	.	6	.	.
<i>Cololejeunea calcarea</i>	E0	.	.	6	4	.	.	4	.
<i>Flexitrichum flexicaule (Ditrichum flexicaule)</i>	E0	.	.	.	4	.	.	.	.
<i>Fontinalis antipyretica subsp. antipyretica</i>	E0	.	.	.	4	.	.	4	.
<i>Palustriella decipiens</i>	E0	.	.	.	.	.	.	4	.
<i>Calliergonella cuspidata</i>	E0	.	.	.	.	.	.	4	.
<i>Saxifraga aizoides</i>	E1	.	.	.	.	.	.	.	100
Caricetalia davallianae									
<i>Campylium stellatum</i>	E0	7	6	6	8	.	.	4	.
<i>Carex lepidocarpa</i>	E1	7	.	.	.	.	.	4	.
<i>Campylophyllopsis calcarea (Campylium calcareum)</i>	E0	7	.	.	.	.	.	.	.
<i>Calliergonella lindbergii</i>	E0	.	.	.	.	10	.	.	.
<i>Carex flava agg.</i>	E1	.	.	.	.	.	.	4	.
Elyno-Seslerietea									
<i>Sesleria caerulea</i>	E1	50	33	39	16	10	9	25	30
<i>Carex mucronata</i>	E1	.	22	.	.	.	.	4	.
<i>Betonica alopecurus</i>	E1	.	11	.	.	.	.	.	.
<i>Carex firma</i>	E1	.	.	28	.	.	.	.	.
<i>Laserpitium peucedanoides</i>	E1	.	.	22	.	.	.	.	.
<i>Carex ferruginea</i>	E1	.	.	17	4	.	.	4	10
<i>Achillea atrata</i>	E1	.	.	6	.	.	.	.	.
<i>Globularia cordifolia</i>	E1	.	.	6	.	.	.	.	.
<i>Selaginella selaginoides</i>	E1	.	.	6	.	.	.	.	.
<i>Ranunculus hybridus</i>	E1	.	.	6	.	.	.	.	.
<i>Phyteuma orbiculare</i>	E1	.	.	6	.	.	.	.	.
<i>Sesleria tenuifolia subsp. kalnikensis</i>	E1	.	.	.	.	.	3	.	.
<i>Carex ornithopodoides</i>	E1	.	.	.	.	.	.	11	.
<i>Erigeron glabratus</i>	E1	.	.	.	.	.	.	4	.
Poo alpinae-Trisetetalia									
<i>Poa alpina</i>	E1	.	.	.	.	.	.	4	.

Successive number (Zaporedna številka)		1	2	3	4	5	6	7	8
Molinio-Arrhenatheretea									
<i>Angelica sylvestris</i>	E1	14	17	.	12	.	.	4	.
<i>Crepis paludosa</i>	E1	.	17	.	8	.	.	4	.
<i>Caltha palustris</i>	E1	.	6	.	8	.	.	.	.
<i>Taraxacum</i> sect. <i>Palustris</i>	E1	.	.	.	.	.	.	7	.
<i>Filipendula ulmaria</i>	E1	.	.	.	.	.	.	4	.
<i>Deschampsia cespitosa</i>	E1	.	.	.	.	.	.	14	.
<i>Prunella vulgaris</i>	E1	.	.	.	.	.	.	11	.
<i>Leontodon hispidus</i>	E1	.	.	.	.	.	.	7	.
<i>Agrostis stolonifera</i>	E1	.	.	.	.	.	.	4	.
<i>Dactylis glomerata</i>	E1	.	.	.	.	.	.	4	.
<i>Galium mollugo</i>	E1	.	.	.	.	.	.	4	.
<i>Taraxacum</i> sect. <i>Ruderalia</i>	E1	.	.	.	.	.	.	4	.
Betulo-Alnetea									
<i>Salix appendiculata</i>	E2a	21	6	11	.	.	3	36	20
Mulgedio-Aconitetea									
<i>Senecio ovatus</i>	E1	.	6	.	12	50	15	.	.
<i>Aconitum angustifolium</i>	E1	.	6	.	.	.	.	.	.
<i>Chaerophyllum hirsutum</i>	E1	.	6	.	.	.	.	.	.
<i>Saxifraga rotundifolia</i>	E1	.	.	17	16	.	3	.	.
<i>Aconitum degenii</i> subsp. <i>paniculatum</i>	E1	.	.	6	.	.	3	.	.
<i>Aconitum lycoctonum</i> subsp. <i>ranunculifolium</i>	E1	.	.	6	.	.	.	.	.
<i>Chaerophyllum hirsutum</i>	E1	.	.	6	24	.	.	14	.
<i>Thalictrum aquilegifolium</i>	E1	.	.	.	8	.	.	.	.
<i>Phyteuma ovatum</i>	E1	.	.	.	4	.	3	.	.
<i>Petasites hybridus</i>	E1	.	.	.	.	.	.	7	.
Epilobietea angustifolii, Sambuco-Salicion capreae									
<i>Eupatorium cannabinum</i>	E1	21	22	.	.	.	.	14	20
<i>Tussilago farfara</i>	E1	7	.	.	.	.	.	11	20
<i>Solanum dulcamara</i>	E1	.	6	.	4	.	.	.	.
<i>Verbascum lanatum</i>	E1	.	6	.	.	.	.	.	.
<i>Rubus idaeus</i>	E1	.	.	.	4	10	.	.	.
<i>Salix caprea</i>	E2a	.	.	.	.	.	3	.	.
<i>Cardamine hirsuta</i>	E1	.	.	.	.	.	.	4	.
<i>Carex oederi</i>	E1	.	.	.	.	.	.	4	.
<i>Fragaria vesca</i>	E1	.	.	.	.	.	.	4	.
<i>Galinsoga ciliata</i>	E1	.	.	.	.	.	.	4	.
Trifolio-Geranietea									
<i>Campanula rapunculoides</i>	E1	.	.	.	12	20	3	14	.
<i>Digitalis grandiflora</i>	E1	.	.	.	.	10	3	.	.
<i>Calamintha einseleana</i>	E1	.	.	.	.	.	.	.	70
<i>Hypericum perforatum</i>	E1	.	.	.	.	.	3	4	20
<i>Laserpitium siler</i>	E1	.	.	.	.	.	3	.	.
<i>Libanotis daucifolia</i>	E1	.	.	.	.	.	.	.	20
Erico-Pinetea									
<i>Calamagrostis varia</i>	E1	86	78	67	36	20	9	86	10
<i>Molinia arundinacea</i>	E1	64	44	.	.	.	.	4	60
<i>Erica carnea</i>	E1	29	.	6	.	.	.	11	10
<i>Bupthalmum salicifolium</i>	E1	14	11	.	.	10	.	25	10
<i>Carex ornithopoda</i>	E1	14	.	.	4	.	3	21	.
<i>Cirsium erisithales</i>	E1	7	6	.	.	10	3	.	.
<i>Rhodothamnus chamaecistus</i>	E1	.	.	33	4	.	.	.	.
<i>Rhododendron hirsutum</i>	E1	.	.	22	.	.	.	.	.
<i>Asperula aristata</i>	E1	.	.	6	.	.	.	.	.
<i>Aquilegia nigricans</i>	E1	.	.	.	12	.	.	.	.
<i>Carex alba</i>	E1	.	.	.	4	.	.	.	.
<i>Epipactis atrorubens</i>	E1	.	.	.	.	.	.	.	10
<i>Leontodon incanus</i>	E1	.	.	.	.	.	.	.	7
<i>Euphrasia cuspidata</i>	E1	.	.	.	.	.	.	.	4
<i>Rubus saxatilis</i>	E1	.	.	.	.	.	.	.	4
Festuco-Brometea									
<i>Brachypodium rupestre</i>	E1	.	.	.	.	.	.	4	10

Successive number (Zaporedna številka)	1	2	3	4	5	6	7	8	
<i>Thymus praecox</i>	E1	.	.	.	.	.	4	10	
<i>Euphorbia cyparissias</i>	E1	.	.	.	.	.	4	.	
<i>Koeleria pyramidata</i>	E1	.	.	.	.	.	4	.	
<i>Linum catharticum</i>	E1	.	.	.	.	.	4	.	
<i>Plantago media</i>	E1	.	.	.	.	.	4	.	
<i>Taraxacum</i> sect. <i>Erythrosperma</i>	E1	.	.	.	.	.	4	.	
<i>Carlina acaulis</i>	E1	.	.	.	.	.	.	20	
<i>Bromopsis erecta</i>	E1	.	.	.	.	.	.	20	
<i>Carex humilis</i>	E1	.	.	.	.	.	.	10	
<i>Pimpinella saxifraga</i>	E1	.	.	.	.	.	.	10	
Vaccinio-Piceetea									
<i>Veronica urticifolia</i>	E1	14	61	39	80	100	82	46	10
<i>Aposeris foetida</i>	E1	7	6	.	.	.	3	.	.
<i>Gentiana asclepiadea</i>	E1	7	17	.	.	.	.	.	.
<i>Saxifraga cuneifolia</i>	E1	.	6	17	16	20	100	.	.
<i>Homogyne sylvestris</i>	E1	.	6	6	4	.	3	.	.
<i>Oxalis acetosella</i>	E1	.	.	11	20	30	30	7	.
<i>Solidago virgaurea</i>	E1	.	.	.	12	20	15	.	.
<i>Clematis alpina</i>	E1	.	.	.	4	.	.	7	.
<i>Abies alba</i>	E1	.	.	.	4	.	.	.	.
<i>Calamagrostis arundinacea</i>	E1	.	.	.	.	10	6	4	.
<i>Hieracium murorum</i>	E1	.	.	.	.	.	3	.	.
<i>Larix decidua</i>	E2a	.	.	.	.	.	.	.	10
<i>Picea abies</i>	E2a	.	.	.	.	.	.	.	10
Aremonio-Fagion, Erythronio-Carpinion									
<i>Cyclamen purpurascens</i>	E1	7	6	6	4	.	30	.	.
<i>Primula vulgaris</i>	E1	7	.	.	4	10	3	.	10
<i>Cardamine trifolia</i>	E1	.	6	6	8	60	12	.	.
<i>Lamium orvala</i>	E1	.	6	.	12	20	6	.	.
<i>Anemone trifolia</i>	E1	.	.	6	4	.	3	.	.
<i>Scopolia carniolica</i>	E1	.	.	.	4	.	3	.	.
<i>Dentaria enneaphyllos</i>	E1	.	.	.	4	.	3	.	.
<i>Euphorbia carniolica</i>	E1	.	.	.	4	.	.	.	.
<i>Omphalodes verna</i>	E1	.	.	.	4	.	.	.	.
Tilio-Acerion									
<i>Aruncus dioicus</i>	E1	7	28	11	28	20	15	18	.
<i>Geranium robertianum</i>	E1	.	17	17	36	30	15	11	20
<i>Phyllitis scolopendrium</i>	E1	.	11	11	.	20	3	18	.
<i>Polystichum aculeatum</i>	E1	.	11	.	4	.	9	.	.
<i>Acer pseudoplatanus</i>	E1	.	6	.	4	.	9	.	.
<i>Ulmus glabra</i>	E1	.	11	.	.	10	9	.	.
<i>Euonymus latifolia</i>	E2a	.	.	.	4	.	.	.	.
<i>Circaea x intermedia</i>	E1	.	.	.	.	10	.	.	.
<i>Polystichum setiferum</i>	E1	.	.	.	.	10	9	.	.
<i>Polystichum x wirtgenii</i>	E1	.	.	.	.	10	.	4	.
<i>Tephroseris pseudocrispa</i>	E1	.	.	.	.	.	12	.	.
<i>Chrysosplenium alternifolium</i>	E1	.	.	.	.	.	6	.	.
Alnion incanae									
<i>Knautia drymeia</i> subsp. <i>intermedia</i>	E1	.	11	.	.	.	.	4	.
<i>Cardamine impatiens</i>	E1	.	6	.	.	.	.	.	.
<i>Rubus caesius</i>	E1	.	.	.	.	.	.	11	.
<i>Alnus glutinosa</i>	E2a	.	.	.	.	.	.	7	.
<i>Salix eleagnos</i>	E2a	.	.	.	.	.	.	4	.
<i>Frangula alnus</i>	E2a	.	.	.	.	.	.	4	.
<i>Viburnum opulus</i>	E2a	.	.	.	.	.	.	4	.
Fagetalia sylvaticae									
<i>Galium laevigatum</i>	E1	43	44	6	4	30	27	14	.
<i>Salvia glutinosa</i>	E1	29	6	.	20	20	15	11	.
<i>Fagus sylvatica</i>	E1	7	.	6	.	.	.	4	.
<i>Mycelis muralis</i>	E1	7	11	6	24	40	42	11	.
<i>Galeobdolon flavidum</i>	E1	.	39	28	40	70	58	14	.
<i>Brachypodium sylvaticum</i>	E1	.	17	.	.	.	.	7	.

Successive number (Zaporedna številka)		1	2	3	4	5	6	7	8
<i>Petasites albus</i>	E1	.	11	.	4	20	.	.	.
<i>Fraxinus excelsior</i>	E1	.	6	.	4	20	.	.	.
<i>Dryopteris filix-mas</i>	E1	.	6	.	4	.	.	.	.
<i>Sambucus nigra</i>	E2a	.	.	.	8	10	3	.	.
<i>Poa nemoralis</i>	E1	.	.	.	4	10	3	.	.
<i>Campanula trachelium</i>	E1	.	.	.	4	10	.	4	.
<i>Cardamine pentaphyllos</i>	E1	.	.	.	4	.	12	.	.
<i>Mercurialis perennis</i>	E1	.	.	.	4	.	9	.	.
<i>Actaea spicata</i>	E1	.	.	.	8	.	3	.	.
<i>Daphne mezereum</i>	E2a	.	.	.	4	.	.	.	.
<i>Lonicera alpigena</i>	E2a	.	.	.	4	.	.	.	.
<i>Phyteuma spicatum</i> subsp. <i>coeruleum</i>	E1	.	.	.	4	.	.	.	.
<i>Asarum europaeum</i> subsp. <i>caucasicum</i>	E1	.	.	.	.	10	15	.	.
<i>Festuca altissima</i>	E1	.	.	.	.	10	3	.	.
<i>Prenanthes purpurea</i>	E1	.	.	.	.	.	12	.	.
<i>Allium ursinum</i>	E1	.	.	.	.	.	3	.	.
<i>Euphorbia dulcis</i>	E1	.	.	.	.	.	3	.	.
<i>Epilobium montanum</i>	E1	.	.	.	.	.	.	4	.
<i>Ranunculus lanuginosus</i>	E1	.	.	.	.	.	.	4	.
<i>Tilia cordata</i>	E2a	.	.	.	.	.	.	4	.
<i>Viola reichenbachiana</i>	E1	.	.	.	.	.	.	4	.
Quercetalia pubescenti-petraeae									
<i>Carex flacca</i>	E1	29	11	.	.	.	.	.	10
<i>Ostrya carpinifolia</i>	E2a	7	.	.	4	.	3	14	60
<i>Euonymus verrucosa</i>	E2a	.	.	.	4	.	.	.	.
<i>Sesleria autumnalis</i>	E1	.	.	.	.	30	6	.	20
<i>Arabis turrata</i>	E1	.	.	.	.	20	12	.	.
<i>Fraxinus ornus</i>	E3a	.	.	.	.	.	.	.	10
<i>Fraxinus ornus</i>	E2a	.	.	.	.	.	3	.	50
Quercu-Fagetea									
<i>Hedera helix</i>	E1	14	11	.	.	50	52	14	.
<i>Carex digitata</i>	E1	7	11	17	4	40	45	4	.
<i>Clematis vitalba</i>	E1	7	.	.	.	10	3	.	.
<i>Potentilla erecta</i>	E1	.	6	.	.	.	.	.	.
<i>Aegopodium podagraria</i>	E1	.	.	.	4	.	.	.	.
<i>Corylus avellana</i>	E2a	.	.	.	4	.	.	.	.
<i>Veratrum nigrum</i>	E1	.	.	.	.	10	18	.	.
<i>Hepatica nobilis</i>	E1	.	.	.	.	.	6	.	.
<i>Festuca heterophylla</i>	E1	.	.	.	.	.	3	.	.
<i>Hieracium racemosum</i>	E1	.	.	.	.	.	.	4	.
<i>Hieracium umbellatum</i>	E1	.	.	.	.	.	.	4	.
<i>Viola riviniana</i>	E1	.	.	.	.	.	.	4	.
Mosses (Mahovi)									
<i>Tortella tortuosa</i>	E0	7	.	22	12	10	18	54	90
<i>Exerthoeca crispa</i> (<i>Neckera crispa</i>)	E0	7	.	11	8	.	70	4	.
<i>Dichodontium pellucidum</i>	E0	7	.	.	4	.	.	7	.
<i>Didymodon fallax</i>	E0	7	.	.	.	.	.	.	.
<i>Seligeria trifaria</i>	E0	7	.	.	.	.	.	.	.
<i>Plagiomnium rostratum</i>	E0	.	17	.	8	40	6	14	.
<i>Hygrohypnum luridum</i>	E0	.	11	.	.	.	.	29	.
<i>Mnium marginatum</i>	E0	.	11	.	.	.	18	.	.
<i>Ctenidium molluscum</i>	E0	.	6	33	8	.	48	57	10
<i>Plagiochila porelloides</i>	E0	.	6	11	8	.	.	.	.
<i>Lophozia</i> sp.	E0	.	6	6	8	.	.	4	.
<i>Alleniella complanata</i> (<i>Neckera complanata</i>)	E0	.	6	.	4	.	3	.	.
<i>Dichodontium pellucidum</i>	E0	.	6	.	.	.	.	.	.
<i>Trichostomum crispulum</i>	E0	.	6	.	.	.	.	4	.
<i>Chionoloma tenuirostre</i> (<i>Oxystegus tenuirostre</i>)	E0	.	6	.	.	.	.	.	.
<i>Microlejeunea ulicina</i>	E0	.	6	.	.	.	.	.	.
<i>Mnium thomsonii</i>	E0	.	.	11	12	20	15	.	.
<i>Plagiomnium undulatum</i>	E0	.	.	11	.	10	15	.	.
<i>Amblystegium serpens</i>	E0	.	.	6	4	.	3	4	.

Successive number (Zaporedna številka)	1	2	3	4	5	6	7	8
<i>Thamnobryum alopecurum</i>	E0	.	6	.	30	18	4	.
<i>Bryum</i> sp.	E0	.	6	.	.	3	.	.
<i>Pohlia wahlenbergii</i>	E0	.	6	.	.	.	.	40
<i>Campylophyllum halleri</i>	E0	.	6	.	.	.	.	.
<i>Didymodon acutus</i>	E0	.	6	.	.	.	.	.
<i>Lophozia obtusa</i>	E0	.	6	.	.	.	.	.
<i>Metzgeria conjugata</i>	E0	.	6	.	.	.	.	.
<i>Serpoleskea confervoides</i> (<i>Amblystegium confervoides</i>)	E0	.	6	.	.	.	.	.
<i>Myurella julacea</i>	E0	.	6	.	.	.	.	.
<i>Pedinophyllum interruptum</i>	E0	.	.	8	10	6	18	.
<i>Brachythecium rutabulum</i>	E0	.	.	4	.	6	14	.
<i>Encalypta streptocarpa</i>	E0	.	.	4	.	6	7	.
<i>Fissidens taxifolius</i>	E0	.	.	4	.	.	.	.
<i>Mnium lycopodioides</i>	E0	.	.	4	.	.	.	.
<i>Philonotis caespitosa</i>	E0	.	.	4	.	.	.	.
<i>Reboulia hemisphaerica</i>	E0	.	.	4	.	.	.	.
<i>Entodon concinnus</i>	E0	.	.	4	.	.	.	.
<i>Ptychostomum capillare</i> (<i>Bryum capillare</i>)	E0	.	.	4	.	.	.	.
<i>Mnium stellare</i>	E0	.	.	.	10	.	.	.
<i>Isothecium alopecuroides</i>	E0	.	.	.	.	39	.	.
<i>Anomodon viticulosus</i>	E0	.	.	.	.	15	.	.
<i>Pseudanomodon attenuatus</i> (<i>Anomodon attenuatus</i>)	E0	.	.	.	.	12	.	.
<i>Chionoloma tenuirostre</i> (<i>Oxystegus tenuirostre</i>)	E0	.	.	.	.	6	.	.
<i>Brachythecium salebrosum</i>	E0	.	.	.	.	3	.	.
<i>Homalothecium philippeanum</i>	E0	.	.	.	.	3	.	.
<i>Mnium spinulosum</i>	E0	.	.	.	.	3	.	.
<i>Weisia</i> sp.	E0	.	.	.	.	3	.	.
<i>Didymodon spadiceus</i>	E0	.	.	.	.	.	21	.
<i>Schistidium apocarpum</i>	E0	.	.	.	.	.	18	.
<i>Cirriphyllum crassinervium</i>	E0	.	.	.	.	.	11	.
<i>Mesoptychia collaris</i> (<i>Leiocolea collaris</i>)	E0	.	.	.	.	.	4	.
<i>Campylopus</i> sp.	E0	.	.	.	.	.	4	.
<i>Hypnum cupressiforme</i>	E0	.	.	.	.	.	4	.
<i>Pseudoleskeella catenulata</i>	E0	.	.	.	.	.	4	.
<i>Rhynchostegium murale</i>	E0	.	.	.	.	.	4	.
<i>Jungermannia</i> sp.	E0	.	.	.	.	.	4	.
<i>Sciuro-hypnum starkei</i> (<i>Brachythecium starkei</i>)	E0	.	.	.	.	.	4	.
<i>Didymodon insulanus</i>	E0	.	.	.	.	.	4	.
<i>Dichodontium flavescens</i>	E0	.	.	.	.	.	4	.
<i>Plagiomnium elatum</i>	E0	.	.	.	.	.	4	.
<i>Hylocomium splendens</i>	E0	.	.	.	.	.	4	.
<i>Didymodon vinealis</i>	E0	.	.	.	.	.	.	10

Legend / Legenda

- AcPa *Astrantio carniolicae-Pinguiculetum alpinae* (Table 1)
 PcAc *Palustriello commutati-Astrantietum carniolicae* (Table 3)
 VbAc *Violo biflorae-Astrantietum carniolicae* (Table 2)
 VuVb *Veronico urticifoliae-Violetum biflorae* (Table 8)
 PcVu *Palustriello commutati-Veronicetum urticifoliae* (Table 4)
 VuSc *Veronico urticifoliae-Saxifragetum cuneifolii* (Table 6)
 CvAb *Calamagrostio variae-Asteretum bellidiastri* (Table 7)
 CcSaac *Campanulo cespitosae-Saxifragetum aizoidis achnatheretosum calamagrostis* (Table 5)

Table 12 (Preglednica 12): *Lamio orvalae-Lunarietum redivivae*

Successive number of relevé (Zaporedna številka popisa)	1	2	3	4	5	6	7	8	9	10	11	12	13
Database number of relevé (Delovna številka popisa)	238417	258452	287166	262939	262960	273872	285295	263213	274352	262914	268366	242769	248105
Elevation in m (Nadmorska višina v m)	630	370	450	150	240	430	350	620	440	310	224	225	430
Aspect (Lega)	N	N	SE	W	E	N	SE	NE	N	SE	N	S	NE
Slope in degrees (Nagib v stopinjah)	40	20	45	5	5	10	30	20	20	5	30	15	30
Parent material (Matična podlaga)	L	Deb	LMCh	Deb	Deb	Deb	Deb	Ta	Deb	Ro	Deb	Deb	Deb
Soil (Tla)	Co	Co	Co	Co	Co	Co	Co	Co	Co	Re	Co	Co	Co
Stoniness in % (Kamnitost v %)	30	60	20	10	20	80	80	60	40	20	10	20	80
Cover of shrub layer in % (Zastiranje grmovne plasti v %):	20	5	.	10	10	.	.	.	.	.	.	.	.
Cover of herb layer in % (Zastiranje zeliščne plasti v %):	90	60	70	80	70	70	70	70	50	80	70	80	80
Cover of moss layer in % (Zastiranje mahovne plasti v %):	10	.	20	.	10	20	20	30	20	.	40	.	30
Number of species (Število vrst)	19	12	13	24	21	30	31	28	20	9	19	24	14
Relevé area (Velikost popisne ploskve)	m ²	30	20	30	20	10	20	100	20	20	10	20	20
Date of taking relevé (Datum popisa)	8/9/2010	4/9/2015	8/11/2021	10/11/2016	10/11/2016	7/23/2018	4/9/2021	9/22/2016	4/20/2018	10/13/2016	8/22/2017	4/8/2012	5/1/2013
Locality (Nahajališče)	Mrzli potok	Avšček	Liščak-Sopot	Dobalrec	Dobalrec	Matevževa grapa-Idrija	Liščak	Žaga-Sušec	Stružnikarjeva grapa	Dobalrec	Široka draga-Bača	Zadlaščica-Medvedova glava	Pradol
Quadrant (Kvadrant)	9748/3	9948/1	9849/1	9848/3	9848/3	9847/2	9849/1	9746/2	9949/1	9848/3	9849/1	9748/3	9746/4
Coordinate GK Y (D-48)	m	397961	400782	411277	398788	398698	396457	410835	383289	414739	398606	409923	403514
Coordinate GK X (D-48)	m	5121400	5103366	5117632	5109347	5110318	5113540	5116990	5128209	5104724	5111023	5113284	5118091
Diagnostic species of the associations (Diagnostične vrste asociacij)													
TA <i>Lunaria rediviva</i>	E1	4	4	4	4	4	3	4	4	3	4	4	4
FS <i>Galeobdolon flavidum</i>	E1	2	1	1	.	1	2	2	+	.	.	1	.
FS <i>Sambucus nigra</i>	E2a	+	+	+	r	+	+	.	+	+	.	.	+
TA <i>Phyllitis scolopendrium</i>	E1	+	1	+	2	3	2	2	1	+	.	2	1
AF <i>Lamium orvala</i>	E1	.	.	.	.	.	.	+	+	+	.	.	.
FS <i>Cardamine pentaphyllos</i>	E1	.	2	.	1	+	2	2	1	.	.	.	+
ML <i>Plagiomnium undulatum</i>	E0	1	.	.	+	.	1	+	3	+	.	.	1
ML <i>Thamnobryum alopecurum</i>	E0	.	.	.	.	1	1	+	1	2	3	1	1
MuA <i>Doronicum austriacum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
MuA <i>Adenostyles alliariae</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
MuA <i>Cicerbita alpina</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
MuA <i>Saxifraga rotundifolia</i>	E1	.	.	.	.	.	.	.	+	.	.	.	+
ArP <i>Arunco-Petasition albi, Petasito-Chaerophylletalia</i>													
<i>Senecio ovatus</i>	E1	.	.	.	+	.	.	.	+	+	.	1	.
<i>Chaerophyllum hirsutum</i>	E1	+	.	.	.	.	.	.	1	.	.	.	.
<i>Athyrium filix-femina</i>	E1	.	.	.	.	.	.	.	r	+	.	.	.
<i>Silene dioica</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
<i>Milium effusum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
MuA <i>Mulgedio-Aconitetea</i>													
<i>Aconitum degenii</i> subsp. <i>paniculatum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
<i>Carduus personata</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
<i>Myrrhis odorata</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.

DAKSKOBLER & MARTINČIČ: VEGETATION OF MOIST ROCK CREVICES AND MOIST (SLOPE) DEBRIS IN THE LIŠČAK GORGE

14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40					
248109	270153	247904	278246	242728	272378	248642	281091	255012	255015	281520	282764	282768	267745	272381	280890	285296	287179	246114	262232	258223	273364	274342	274699	264684	269590	248115					
475	200	280	105	225	527	410	575	240	270	470	570	555	390	500	500	350	350	1030	1050	815	463	385	440	450	1350	470					
0	N	S	NNE	W	SW	0	SEE	SW	SW	NNE	NW	N	NW	S	S	NW	SE	S	SW	E	NW	NE	0	NW	N	0					
0	25	5	10	20	10	0	5	25	40	35	60	50	45	60	10	45	60	20	30	5	5	40	0	10	40	0					
Deb	Deb	Deb	Deb	Deb	Deb	Gr	D	Deb	Deb	Ta	Deb	Deb	Deb	LCh	Deb	LMCh	LMCh	L	Deb	Gr	Gr	DChCl	Gr	Deb	L	Deb					
Co	Co	Co	Re	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Re	Co	Co	Co	Eu	Co	Co	Re	Li					
60	80	100	20	30	10	20	30	40	80	10	20	20	90	100	20	30	20	70	10	10	20	5	10	30	10	30					
.	.	.	.	2	.	.	.	5	5	.	.	.	20	.	.	.	.	.	.	.	.	.	.	.	.	.
80	70	70	100	70	95	95	100	70	80	80	80	80	70	50	70	70	80	70	100	100	80	70	60	70	100	70					
20	40	50	.	30	.	.	.	.	.	.	.	.	30	30	20	20	30	10	.	15	15	10	.	100	90	
20	20	16	26	18	36	18	19	16	21	24	22	23	17	19	33	18	10	23	17	37	45	18	11	26	16	39					
20	20	10	30	30	50	5	10	20	20	10	30	30	30	30	50	20	20	30	20	30	20	15	10	20	20	100					
5/1/2013	3/20/2017	4/18/2013	4/15/2019	4/1/2012	8/17/2018	6/12/2013	5/21/2020	4/7/2014	4/7/2014	3.6.2020	6/22/2020	6/22/2020	7/13/2017	8/17/2018	5/4/2020	4/9/2021	6/18/2021	5/18/2012	7/20/2016	6/5/2015	8/10/2018	4/20/2018	3/30/2019	7/6/2016	6/8/2017	7/16/2001					
Pradol	Zel potok	Raša-Globočak	Branik-Petnik	Ljubinj-Potočnica	Sevščkar-Sopota	Kobile	Vintgar	Branica-Trebižani	Branica-Trebižani	Kozjek	Vintgar	Vintgar	Volarja-Mrzlica	Sevščkar-Sopota	Kozjek-Vrše	Liščak	Liščak	Marni vrh	Kacempoh-Skala	Poključka soteska	Prodarjeva grapa	Stružnik	Prodarjeva grapa	Vintgar	Črna gora-pl. za Liscem	Pradol					
9746/4	9947/1	0249/2	0148/2	9848/2	9848/2	0258/1	9650/2	0149/3	0149/3	9948/2	9650/2	9650/2	9748/3	9848/2	9948/2	9849/1	9849/1	0049/4	9749/4	9650/1	9849/2	9949/1	9849/2	9848/1	9749/4	9746/4					
5121040	380678	415805	405986	404569	407983	527783	430075	415667	415740	408483	430273	430447	397417	407966	408472	410843	410894	418814	419950	425854	418783	414738	418702	397070	418503	380306					
4	4	3	4	4	5	4	3	3	4	3	3	4	2	1	+	1	+	4	4	3	3	4	2	+	3	1	40	100			
.	1	.	.	+	+	.	1	+	3	1	1	1	2	2	+	1	2	+	+	+	+	24	60			
+	3	+	1	+	1	.	.	+	+	.	2	1	+	2	3	1	1	.	.	+	+	+	24	60			
+	.	3	3	+	+	.	.	4	+	3	3	1	+	3	3	3	4	.	.	.	1	+	.	1	.	.	22	55			
2	1	2	.	.	2	1	.	.	1	.	1	2	.	.	1	.	.	17	43			
2	3	2	3	1	.	.	1	.	.	14	35			
2	1	+	1	+	+	14	35			
.	1	3	2	5		
.	3	1	3		
.	1	1	3		
.	4	6	15		
.	15	38
+	1	.	2	1	.	.	.	1	2	8	20		
.	+	2	10	25		
.	+	+	3	8		
.	2	+	2	5		
.	1	.	.	+	3	8		
.	2	5		
.	3	8		

Successive number of relevé (Zaporedna številka popisa)	1	2	3	4	5	6	7	8	9	10	11	12	13
<i>Geum rivale</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
<i>Stellaria nemorum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
<i>Aconitum lycoctonum</i>	E1	.	.	.	.	.	.	.	.	.	.	+	.
<i>Veratrum album</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
<i>Rumex alpinus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
<i>Petasites hybridus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
<i>Senecio cacaliaster</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
<i>Aconitum angustifolium</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
TG Trifolio-Geranietea													
<i>Campanula rapunculoides</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
<i>Clinopodium vulgare</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
<i>Vincetoxicum hirundinaria</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
EA Epilobietea angustifolii													
<i>Impatiens parviflora</i>	E1	.	.	.	.	.	.	.	.	.	.	+	.
<i>Eupatorium cannabinum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
<i>Galeopsis speciosa</i>	E1	+	.	.	.	1	.	.	.	.	.	.	.
<i>Solanum dulcamara</i>	E1	+	.	.	.	.	.	.	.	.	.	.	.
<i>Rubus idaeus</i>	E2a	.	.	.	.	.	.	.	.	.	.	.	.
<i>Fragaria vesca</i>	E1	.	.	.	.	.	.	.	.	.	.	+	.
<i>Barbarea vulgaris</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
<i>Arctium nemorosum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
<i>Galeopsis pubescens</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
<i>Stachys sylvatica</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
MC Montio-Cardaminetea													
<i>Conocephalum conicum</i>	E0	+	.	+	1	1	.	.	+	1	.	1	.
<i>Cratoneuron filicinum</i>	E0	.	.	+	.	.	.	.	.	.	.	.	.
<i>Oxyrrhynchium hians</i>	E0	.	.	+	.	.	.	.	.	.	.	.	.
ES Elyno-Seslerietea													
<i>Carex ferruginea</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
<i>Sesleria caerulea</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
Mo Molinion													
<i>Caltha palustris</i>	E1	.	.	.	.	1	.	.	.	.	.	.	+
<i>Angelica sylvestris</i>	E1	.	.	.	.	.	+	+	.	.	.	.	.
<i>Cirsium oleraceum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
<i>Filipendula ulmaria</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
MA Molinio-Arrhenatheretea													
<i>Anthriscus sylvestris</i>	E1	.	.	.	1	.	.	.	.	.	.	.	.
<i>Geranium phaeum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
GU Galio-Urticetea, Stellarietea mediae													
<i>Urtica dioica</i>	E1	.	.	.	.	.	.	.	.	.	.	1	1
<i>Geum urbanum</i>	E1	.	.	.	.	.	.	.	.	.	.	+	.
<i>Glechoma hederacea</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
<i>Lamium maculatum</i>	E1	.	.	.	.	.	.	.	.	.	.	+	.
<i>Parietaria officinalis</i>	E1	.	.	.	+	.	.	.	.	.	.	.	.
<i>Erigeron annuus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
<i>Impatiens glandulifera</i>	E1	.	.	.	.	.	.	.	.	.	.	+	.
<i>Veronica chamaedrys</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
<i>Stellaria media</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
TR Thlaspietea rotundifolii													
<i>Adenostyles glabra</i>	E1	.	.	.	.	.	.	.	.	.	.	+	.
<i>Gymnocarpium dryopteris</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
<i>Gymnocarpium robertianum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
<i>Arabis alpina</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
AP Astrantio-Paederotion luteae													
<i>Cystopteris fragilis</i>	E1	+	.	.	.	+	.	.	+	.	.	.	.
<i>Fissidens dubius</i>	E0	.	.	.	.	.	+	.	+	.	.	.	.
<i>Palustriella commutata</i>	E0	.	.	1	.	.	.	.	.	.	.	.	.
<i>Astrantia carniolica</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
<i>Valeriana tripteris</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
<i>Apopellia endiviifolia (Pellia endiviifolia)</i>	E0	.	.	.	+	.	.	.	.	.	.	.	.
<i>Paederota lutea</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
<i>Orthothecium rufescens</i>	E0	.	.	.	.	.	.	.	.	.	.	.	.
<i>Viola biflora</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.

Successive number of relevé (Zaporedna številka popisa)	1	2	3	4	5	6	7	8	9	10	11	12	13
AT <i>Asplenietea trichomanis</i>													
<i>Asplenium trichomanes</i>	E1	.	.	+	+	+	+	1	.	.	.	.	.
<i>Polypodium vulgare</i>	E1	.	.	.	.	+	.	+	+	.	.	.	+
<i>Saxifraga petraea</i>	E1	.	.	.	+	.	.	.	.	r	.	.	.
AI <i>Alnion incanae</i>													
<i>Chrysosplenium alternifolium</i>	E1	.	.	.	+	.	.	.	.	.	.	.	.
<i>Cardamine impatiens</i>	E1	.	.	+	.	.	.	.	+	.	.	.	.
<i>Impatiens noli-tangere</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
<i>Festuca gigantea</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
<i>Rubus caesius</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
<i>Aesculus hippocastanum</i>	E2a	.	.	.	.	.	.	.	.	.	.	.	.
<i>Matteuccia struthiopteris</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
TA <i>Tilio-Acerion</i>													
<i>Geranium robertianum</i>	E1	.	.	.	1	1	1	+	.	1	+	+	.
<i>Stellaria montana</i>	E1	.	.	.	.	.	+	1	+	+	+	.	.
<i>Aruncus dioicus</i>	E1	+	.	+	.	+	.	.	.	.	.	.	.
<i>Polystichum setiferum</i>	E1	.	+	1	.	+	.	+	1	.	+	.	.
<i>Adoxa moschatellina</i>	E1	.	1	.	.	.	.	+	.	.	.	1	.
<i>Acer pseudoplatanus</i>	E2a	+	.	.	.	+	.	.	+	.	.	.	.
<i>Acer pseudoplatanus</i>	E1	.	.	.	.	.	.	+	.	.	.	.	.
<i>Ulmus glabra</i>	E1	.	r	.	+	+	.	+	.	.	.	.	.
<i>Arum maculatum</i>	E1	.	+	.	.	.	.	.	.	.	.	1	1
<i>Polystichum aculeatum</i>	E1	.	.	.	.	.	.	+	+	.	.	.	.
<i>Thalictrum aquilegifolium</i>	E1	.	.	.	.	.	.	.	.	.	.	.	+
<i>Dryopteris affinis</i>	E1	.	.	.	.	.	+	.	.	.	+	.	.
<i>Tephrosieris pseudocrispa</i>	E1	.	.	.	.	.	.	.	.	.	.	+	.
<i>Isopyrum thalictroides</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
<i>Circaea x intermedia</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
<i>Polystichum braunii</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
<i>Anthriscus nitida</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
<i>Polystichum x bicknellii</i>	E1	.	.	.	.	.	+	.	.	.	.	.	.
<i>Corydalis solida</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
<i>Dryopteris remota</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
<i>Acer platanoides</i>	E2a	.	.	.	.	.	.	.	.	.	.	.	.
<i>Hesperis candida</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
<i>Tephrosieris longifolia</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
<i>Cardamine flexuosa</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
<i>Veronica montana</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
EC <i>Erythronio-Carpinion</i>													
<i>Galanthus nivalis</i>	E1	.	.	.	.	.	.	+	.	.	.	2	.
<i>Helleborus odoratus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
<i>Ornithogalum pyrenaicum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
AF <i>Aremonio-Fagion</i>													
<i>Cardamine trifolia</i>	E1	3	.	.	1	.	+	1	.	+	.	.	.
<i>Cardamine enneaphyllos</i>	E1	.	.	.	.	.	.	.	+	.	.	.	.
<i>Anemone trifolia</i>	E1	.	+	.	.	.	1	+	.	.	.	+	.
<i>Cyclamen purpurascens</i>	E1	.	.	.	.	+	.	.	.	.	.	.	.
<i>Geranium nodosum</i>	E1	.	.	.	.	+	.	.	.	+	.	+	.
<i>Scopolia carniolica</i>	E1	.	.	.	.	.	.	.	.	.	2	.	.
<i>Euphorbia carniolica</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
<i>Daphne laureola</i>	E2a	.	.	.	+	.	.	.	.	.	.	.	.
<i>Hacquetia epipactis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
<i>Epimedium alpinum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
<i>Vicia oroboides</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
<i>Omphalodes verna</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
FS <i>Fagetalia sylvaticae</i>													
<i>Salvia glutinosa</i>	E1	.	.	.	.	.	.	1	.	.	+	.	.
<i>Dryopteris filix-mas</i>	E1	+	.	.	.	.	1	.	.	+	.	.	.
<i>Asarum europaeum</i> subsp. <i>caucasicum</i>	E1	+	.	.	.	.	.	+	.	.	+	1	.
<i>Brachypodium sylvaticum</i>	E1	.	.	+	+	.	.	+	.	.	+	.	.
<i>Corydalis cava</i>	E1	.	.	.	.	.	.	.	.	.	.	2	3
<i>Mycelis muralis</i>	E1	.	+	.	.	.	+	.	+	.	.	.	.

Successive number of relevé (Zaporedna številka popisa)		1	2	3	4	5	6	7	8	9	10	11	12	13
<i>Fraxinus excelsior</i>	E2a	1	.	.	.	+	.	.	.	.	.	.	.	.
<i>Petasites albus</i>	E1	.	.	.	.	.	.	+	.	.	.	.	.	.
<i>Dentaria bulbifera</i>	E1	.	.	.	.	.	.	+	.	.	.	.	.	.
<i>Circaea lutetiana</i>	E1	.	.	.	.	.	.	.	r	.	.	.	.	.
<i>Symphytum tuberosum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Mercurialis perennis</i>	E1	.	.	.	.	.	.	.	+	.	.	.	1	.
<i>Allium ursinum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Pulmonaria officinalis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	+	.
<i>Fagus sylvatica</i>	E3	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Fagus sylvatica</i>	E1	.	.	.	.	.	.	+	.	.	.	.	.	.
<i>Festuca altissima</i>	E1	.	.	.	.	1	.	.	.	.	.	.	.	.
<i>Galium laevigatum</i>	E1	.	.	.	.	.	.	+	.	.	.	.	.	.
<i>Ranunculus lanuginosus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Actaea spicata</i>	E1	+	.	.	.	.	.	.	.	.	.	.	.	.
<i>Myosotis sylvatica</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Phyteuma spicatum</i> subsp. <i>coeruleum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Epilobium montanum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Scrophularia nodosa</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Tilia cordata</i>	E1	.	.	.	r	.	.	.	.	.	.	.	.	.
<i>Lathyrus vernus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	+	.
<i>Leucojum vernum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Galeobdolon montanum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Carex sylvatica</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Euphorbia dulcis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Polygonatum multiflorum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Galium odoratum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Luzula nivea</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
QP <i>Quercetalia pubescenti-petraeae</i>														
<i>Ruscus aculeatus</i>	E1	.	.	.	1	+	.	.	.	.	.	.	.	.
<i>Arabis turrata</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Inula conyza</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
QP <i>Quercio-Fagetea</i>														
<i>Hedera helix</i>	E1	.	.	.	.	+	+	+	.	.	.	+	+	.
<i>Aegopodium podagraria</i>	E1	.	.	.	+	.	1	.	.	.	.	+	+	.
<i>Clematis vitalba</i>	E1	.	.	.	.	.	.	+	.	.	.	.	.	.
<i>Ficaria verna</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Anemone nemorosa</i>	E1	.	.	.	.	.	1	.	.	.	.	.	.	.
<i>Carex digitata</i>	E1	.	.	.	.	.	+	.	.	.	+	.	.	.
<i>Corylus avellana</i>	E2a	.	.	.	r	.	.	.	.	.	.	.	.	.
<i>Lathraea squamaria</i>	E1	.	.	.	.	.	.	.	.	.	.	.	+	.
<i>Moehringia trinervia</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Dactylis polygama</i>	E1	.	.	.	r	.	.	.	.	.	.	.	.	.
<i>Hepatica nobilis</i>	E1	.	.	.	.	.	+	.	.	.	.	.	.	.
<i>Paris quadrifolia</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Acer campestre</i>	E2a	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Acer campestre</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Anemone ranunculoides</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Cerastium sylvaticum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Gagea lutea</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Vinca minor</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Viola riviniana</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Rubus hirtus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Veratrum nigrum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
RP <i>Rhamno-Prunetea</i>														
<i>Cornus sanguinea</i>	E2a	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Rubus fruticosus</i> agg.	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
EP <i>Erico-Pinetea</i>														
<i>Cirsium erisithales</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Calamagrostis varia</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Molinia arundinacea</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Vaccinio-Piceetea</i>														
<i>Oxalis acetosella</i>	E1	+	+	.	1	.	1	+	+	+	.	.	.	.

Successive number of relevé (Zaporedna številka popisa)	1	2	3	4	5	6	7	8	9	10	11	12	13
<i>Veronica urticifolia</i>	E1	.	.	.	.	+	.	+	.	.	.	.	.
<i>Saxifraga cuneifolia</i>	E1	.	.	.	.	.	+	.	.	.	.	.	.
<i>Aposeris foetida</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
<i>Calamagrostis arundinacea</i>	E1	+	.	.	.	.	.	.	.	.	.	.	.
<i>Phegopteris connectilis</i>	E1	.	.	.	.	.	.	.	+	.	.	.	.
<i>Dryopteris dilatata</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
<i>Luzula luzuloides</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
<i>Clematis alpina</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
ML Mosses (Mahovi)													
<i>Ctenidium molluscum</i>	E0	.	.	.	.	+	1	.	+	1	.	.	.
<i>Brachythecium rutabulum</i>	E0	.	.	.	.	.	.	1	.	.	.	1	2
<i>Isoetecium alopecuroides</i>	E0	.	.	.	.	.	1	.	.	.	.	+	.
<i>Exertotheca crispa (Neckera crispa)</i>	E0	.	.	.	.	.	.	.	+	.	.	.	.
<i>Schistidium apocarpum</i>	E0	.	.	.	.	.	.	.	.	.	.	.	.
<i>Eurhynchium zetterstedtii</i>	E0	.	.	.	.	.	.	1	.	.	.	.	.
<i>Sciuro-hypnum populeum</i>	E0	.	.	.	.	.	.	.	.	.	.	.	.
<i>Plagiomnium rostratum</i>	E0	.	.	.	.	.	.	.	.	.	.	.	.
<i>Pseudanomodon attenuatus (Anomodon attenuatus)</i>	E0	.	.	.	.	.	.	.	.	.	.	.	.
<i>Didymodon insulanus</i>	E0	.	.	.	.	.	.	.	.	.	.	.	.
<i>Hygrohypnum luridum</i>	E0	.	.	.	.	.	.	.	.	.	.	.	.
<i>Plasteurhynchium striatulum</i>	E0	.	.	.	.	.	.	.	.	.	.	.	.
<i>Rhynchostegium murale</i>	E0	.	.	.	.	.	.	.	.	.	.	.	.
<i>Schistidium crassifolium</i>	E0	.	.	.	.	.	.	.	.	.	.	.	.
<i>Rhytidiadelphus loreus</i>	E0	.	.	.	.	.	.	.	.	.	.	.	.
<i>Hylocomiadelphus triquetrus (Rhytidiadelphus triquetrus)</i>	E0	.	.	.	.	.	.	.	.	.	.	.	.
<i>Hylocomium splendens</i>	E0	.	.	.	.	.	.	.	.	.	.	.	.
<i>Rhizomnium punctatum</i>	E0	.	.	.	.	.	.	.	.	.	.	.	.
<i>Peltigera sp.</i>	E0	.	.	.	.	.	.	.	.	.	.	.	.
<i>Plagiochila porelloides</i>	E0	.	.	.	.	.	.	.	.	.	.	.	.
<i>Sanionia uncinata</i>	E0	.	.	.	.	.	.	.	.	.	.	.	.

Legend - Legenda

L Limestone - apnenec

Ch Chert - roženec

D Dolomite - dolomit

Deb Debris - grušč

Gr Gravel - prod

M Marlstone - laporovec

Ro Rockslide - podorno gradivo

Ta Talus - vršaj

Co Colluvial-deluvial soil - koluvialno-deluvialna tla

Eu Eutric brown soil - evtrična rjava tla

Re rendzina - rendzina

Li Lithosol - kamnišče

Pr. Presence (number of relevés in which the species is presented) - število popisov, v katerih se pojavlja vrsta

Fr. Frequency in % - frekvenca v %

 1-38 *Lamio orvalae-Lunarietum redivivae*

 39 *Doronico austriaci-Adenostyletum alliariae lunarietosum redivivae*

 40 *Lunario redivivae-Saxifragetum rotundifoliae* nom. prov.

14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	Pr.	Fr.		
.	+	+	+	+	6	15	
.	2	2	5
.	+	1	.	.	.	.	.	.	.	.	.	.	.	.	.	2	5
.	+	.	.	2	5
.	1	3
.	r	.	.	.	.	.	.	.	.	.	.	1	3
.	+	.	.	1	3
.	+	1	3
.	.	3	1	.	.	.	.	.	.	.	.	.	.	.	2	+	.	1	.	.	1	.	.	+	.	1	12	30		
.	1	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	1	.	.	7	18	
.	.	1	+	.	.	.	.	.	.	.	.	.	.	2	.	.	1	.	.	.	.	.	.	.	.	.	.	6	15	
.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	3	8
.	.	+	+	+	3	8	
.	1	3
.	1	.	.	.	.	.	1	3
.	1	.	.	.	.	.	1	3
.	+	1	3
.	+	1	3
.	+	1	3
.	+	1	3
.	+	1	3
.	+	1	3
.	+	1	3
.	+	1	3
.	+	1	3
.	+	1	3
.	+	1	3
.	+	1	3
.	+	1	3
.	+	1	3

Table 13 (Preglednica 13): *Lamio orvalae-Sambucetum nigrae lunarietosum redivivae*

Successive number of relevé (Zaporedna številka popisa)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Database number of relevé (Delovna številka popisa)	248415	249067	248416	268269	281618	282737	258453	260838	260842	261426	261429	258459	258460	260840	260844	260845	260847	260937	285376	285839	284764	284765	280014	280015	264505
Elevation in m (Nadmorska višina v m)	760	750	765	780	590	570	370	370	370	360	380	360	350	370	545	545	530	550	310	230	260	255	510	500	125
Aspect (Lega)	N NW	E	NW	NW	N	N	E	NW	NW	N	W	NW	NW	N	N	N	N	NW	NE	NE	NE	NE	SE	SE	NE
Slope in degrees (Nagib v stopinjah)	35	35	10	15	35	25	35	25	35	25	35	20	30	40	30	30	35	30	15	10	30	10	5	10	5
Parent material (Matična podlaga)	M	M	Ss	L	Deb	Deb	LM	LM	LM	LM	Deb	LM	LM	LM	LM	LM	LM	LM	L	Deb	Deb	Deb	Ro	Ro	Fl
Soil (Tla)	CC	CC	Eu	Co	Co	Co	CC	CC	CC	Co	Co	Eu	Eu	Eu	CC	Co	CC	CC	Co	Co	Co	Co	Co	Co	Eu
Stoniness in % (Kamnitost v %)	0	0	0	10	40	30	60	10	10	20	30	5	5	0	10	10	10	10	5	30	40	70	70	50	20
Cover of tree layer in % (Zastiranje drevesne plasti v %):	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	15	.	.	.	.	.	.	10
Cover of shrub layer in % (Zastiranje grmovne plasti v %):	60	80	80	80	50	70	90	80	80	80	80	60	70	80	80	70	80	60	70	40	70	70	70	70	70
Cover of herb layer in % (Zastiranje zeliščne plasti v %):	70	60	50	70	100	90	40	70	70	70	70	40	70	50	60	60	80	80	70	70	60	60	50	90	
Cover of moss layer in % (Zastiranje mahovne plasti v %):	.	.	.	10	15	.	.	5	10	50	40	.	.	10	.	5	5	5	30	20	40	30	20	20	.
Number of species (Število vrst)	25	33	21	44	35	33	23	27	40	40	47	27	28	33	33	27	32	40	25	40	24	20	34	26	41
Relevé area (Velikost popisne ploskve)	m ²	100	100	100	100	30	50	50	50	50	50	100	50	50	50	50	50	100	60	4	40	40	100	100	100

Date of taking relevé (Datum popisa)

Locality (Nahajališče)

Quadrant (Kvadrant)

Coordinate GK Y (D-48)

Coordinate GK X (D-48)

Diagnostic species of the association (Diagnostične vrste asociacije)

FS	<i>Sambucus nigra</i>	4	4	4	4	3	3	4	4	4	2	4	4	4	4	4	5	3	4	4	4	4	4	3	25
FS	<i>Sambucus nigra</i>	+	+	.	.	.	.	1	+	+	+	.	.	.	1	.	.	+	.	.	1	.	.	.	10
FS	<i>Sambucus nigra</i>	.	.	.	.	.	1	1	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	3
AF	<i>Lamium orvala</i>	.	.	1	2	2	1	1	1	1	2	1	1	+	+	+	+	+	1	3	.	3	2	18	
TA	<i>Phyllitis scolopendrium</i>	1	.	1	2	1	1	1	1	2	2	1	1	.	.	.	.	.	1	1	4	3	1	2	18
TA	<i>Geranium robertianum</i>	+	1	1	1	.	.	.	.	1	1	.	.	.	+	+	+	1	+	1	+	1	.	.	16
																									64

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	Pr. Fr.		
Successive number of relevé (Zaporedna številka popisa)																													
Differential species of subassociation and variants (Razlikovalne vrste subsociacije in variant)																													
TA	<i>Lunaria rediviva</i>	E1	3	2	2	1	4	4	3	2	2	4	3	2	1	1	1	+	+	1	2	2	1	1	1	1	20	80	
FS	<i>Circaea lutetiana</i>	E1	1	1	1	1	+	1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	13	52	
FS	<i>Cardamine pentaphyllos</i>	E1	1	1	1	1	1	3	3	3	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	13	52	
Geografska razlikovalna vrsta																													
AF	<i>Anemone trifolia</i>	E1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15	60	
Razlikovalnice nižjih enot																													
GU	<i>Urtica dioica</i> (inc. <i>U. galeopsifolia</i>)	E1	2	3	1	2	1	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	12	48
AI	<i>Impatiens noli-tangere</i>	E1	1	2	1	+	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6	24	
MuA	<i>Milium effusum</i>	E1	1	1	+	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	16	
FS	<i>Fraxinus excelsior</i>	E3b	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	16
FS	<i>Fraxinus excelsior</i>	E2a	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	16
AF	<i>Cardamine trifolia</i>	E1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	7	28	
TA	<i>Tilia platyphyllos</i>	E2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6	24	
AF	<i>Scopolia carniolica</i>	E1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	8	32	
FS	<i>Leucium vernum</i>	E1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	8	
TR	<i>Adenostyles glabra</i>	E1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	12	
EC	<i>Primula vulgaris</i>	E1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	12	
QP	<i>Ruscus aculeatus</i>	E2a	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	12	
TA Tilio-Acerion																													
	<i>Acer pseudoplatanus</i>	E3a	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	16
	<i>Acer pseudoplatanus</i>	E2	r	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	56	
	<i>Acer pseudoplatanus</i>	E1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	7	28	
	<i>Arum maculatum</i>	E1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	12	48
	<i>Ulmus glabra</i>	E3b	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	16
	<i>Ulmus glabra</i>	E2	r	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	11	44	
	<i>Polystichum aculeatum</i>	E1	r	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	11	44	
	<i>Aruncus dioicus</i>	E1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	9	36	
	<i>Polystichum setiferum</i>	E1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	8	32	
	<i>Dryopteris affinis</i>	E1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	6	24	
	<i>Stellaria montana</i>	E1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	5	20	
	<i>Adoxa moschatellina</i>	E1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	4	16	
	<i>Polystichum braunii</i>	E1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	3	12	
	<i>Acer platanoides</i>	E2	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	2	8	
	<i>Euonymus latifolia</i>	E2	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	2	8	
	<i>Circaea x intermedia</i>	E1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	2	8	
	<i>Tephrosia pseudocrispa</i>	E1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	2	8	
	<i>Polystichum x luerssenii</i>	E1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	2	8	
	<i>Juglans regia</i>	E2	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	2	8	
	<i>Acer platanoides</i>	E1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	1	4	
	<i>Hesperis candida</i>	E1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	1	4	
	<i>Anthriscus nitida</i>	E1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	1	4	
	<i>Thalictrum aquilegifolium</i>	E1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	1	4	
AI Abnion incanum																													
	<i>Chrysosplenium alternifolium</i>	E1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	5	20	
	<i>Cardamine impatiens</i>	E1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	2	8	

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	Fr.		
Successive number of relevé (Zaporedna številka popisa)																												
<i>Viburnum opulus</i>	E2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
<i>Arum italicum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
<i>Carex pendula</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
<i>Equisetum telmateia</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
AF <i>Arenonio-Fagion</i>																												
<i>Cyclamen purpurascens</i>	E1	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	16
<i>Cardamine enneaphyllos</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	12
<i>Omphalodes verna</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	8
<i>Hacquetia epipactis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	8
<i>Geranium nodosum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	8
<i>Vicia oroboides</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
<i>Helleborus niger</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
EC <i>Erythronio-Carpinion</i>																												
<i>Galanthus nivalis</i>	E1	8
<i>Helleborus odorus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	8
<i>Lonicera caprifolium</i>	E2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
FS <i>Fagetalia sylvaticae</i>																												
<i>Salvia glutinosa</i>	E1	+	1	+	+	+	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	60
<i>Galeobdolon flavidum</i>	E1	.	.	.	.	1	1	.	+	1	1	+	+	.	.	.	.	.	.	.	.	.	.	.	.	.	56
<i>Fagus sylvatica</i>	E2a	+	+	.	1	.	.	.	.	.	.	1	+	.	.	.	.	.	.	.	.	.	.	.	.	.	44
<i>Fagus sylvatica</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	16
<i>Dryopteris filix-mas</i>	E1	2	1	1	1	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	44
<i>Mercurialis perennis</i>	E1	1	1	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	40
<i>Asarum europaeum</i> subsp. <i>caucasicum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	36
<i>Galium laevigatum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	36
<i>Galium odoratum</i>	E1	+	+	1	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	36
<i>Symphytum tuberosum</i>	E1	+	+	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	36
<i>Cardamine bulbifera</i>	E1	.	.	2	.	.	.	.	.	.	.	3	+	2	.	.	.	.	.	.	.	.	.	.	.	.	32
<i>Mycelis muralis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	28
<i>Petasites albus</i>	E1	+	.	.	.	.	.	.	.	.	.	1	2	3	.	.	.	.	.	.	.	.	.	.	.	.	24
<i>Festuca altissima</i>	E1	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	20
<i>Ranunculus lanuginosus</i>	E1	.	.	.	.	3	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	20
<i>Actaea spicata</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	20
<i>Polygonatum multiflorum</i>	E1	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	16
<i>Pulmonaria officinalis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	16
<i>Viola reichenbachiana</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	16
<i>Scrophularia nodosa</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	12
<i>Lathyrus vernus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	12
<i>Corydalis cava</i>	E1	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	8
<i>Brachypodium sylvaticum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	8
<i>Myosotis sylvatica</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	8
<i>Laburnum alpinum</i>	E2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	8
<i>Paris quadrifolia</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	8
<i>Sanicula europaea</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	8
<i>Carex sylvatica</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	8
<i>Euphorbia dulcis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	8

Successive number of relevé (Zaporedna številka popisa)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	Fr.	
<i>Daphne mezereum</i>	E2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2
<i>Allium ursinum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	8
<i>Lathyrus vernus</i> subsp. <i>flaccidus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	8
<i>Campanula trachelium</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
<i>Epilobium montanum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
<i>Melica nutans</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
<i>Lonicera alpigena</i>	E2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
<i>Phyteuma spicatum</i> subsp. <i>coeruleum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
<i>Euphorbia amygdaloides</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
QP <i>Quercetalia pubescenti-petraeae</i>																											
<i>Ostrya carpinifolia</i>	E2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	16
<i>Sesleria autumnalis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	12
<i>Arabis turrita</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	8
<i>Hypericum montanum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
<i>Cornus mas</i>	E2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
<i>Lathyrus venetus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
<i>Asparagus tenuifolius</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
<i>Asparagus acutifolius</i>	E2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
<i>Carex flacca</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
<i>Fraxinus ornus</i>	E2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
<i>Helleborus multifidus</i> subsp. <i>istriacus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
<i>Orchis purpurea</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
<i>Tamus communis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
QF <i>Quercio-Fagetea</i>																											
<i>Aegopodium podagraria</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	44
<i>Hedera helix</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	44
<i>Carex digitata</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	36
<i>Clematis vitalba</i>	E2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	36
<i>Rubus hirtus</i>	E2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	28
<i>Anemone nemorosa</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	24
<i>Corylus avellana</i>	E2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	20
<i>Ranunculus ficaria</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	16
<i>Hepatica nobilis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	16
<i>Anemone ranunculoides</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	8
<i>Acer campestre</i>	E2b	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	8
<i>Cerastium sylvaticum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	8
<i>Pyrus pyraeaster</i>	E2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
<i>Carpinus betulus</i>	E2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
<i>Veratrum nigrum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
<i>Lonicera xylosteum</i>	E2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
<i>Pteridium aquilinum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
<i>Acer campestre</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
EP <i>Erico-Pinetea</i>																											
<i>Cirsium erisithales</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
<i>Buphthalmum salicifolium</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	Fr.					
Successive number of relevé (Zaporedna številka popisa)																															
VP	Vaccinio-Piceetea																														
	E1	+	.	.	.	.	.	.	+	.	+	1	1	1	.	+	+	.	.	.	.	.	.	.	.	.	14	56		
	E1	.	.	.	.	+	.	.	.	.	+	.	.	.	.	+	+	.	.	.	.	.	.	.	.	.	.	4	16	
	E1	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	3	12	
	E1	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	+	.	3	12		
	E1	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	8	
	E1	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	4	
	E1	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	4	
	E2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	1	4	
	E2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	1	4	
RP	Rhamno-Prunetea																														
	E2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	16
	E2a	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	4
	E2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	1	4
	E2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	4
	E2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	4
	E2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	4
	E2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	4
BA	Betulo-Alneta																														
	E2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	8
MuA	Mulgedio-Aconitetea																														
	E1	1	+	1	.	.	.	.	+	+	+	+	+	1	+	+	.	.	.	.	.	.	.	.	.	.	.	.	13	52
	E1	+	.	1	1	+	1	.	.	.	.	.	.	+	1	1	+	.	.	.	.	.	.	.	1	+	.	.	13	52
	E1	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	16
	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	8
	E1	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	8
	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	4
	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	4
	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	4
EA	Epilobietea angustifolii																														
	E2a	7	28
	E1	.	.	.	.	+	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	4	16
	E1	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	12
	E1	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	8
	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	8
	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	4
	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	4
	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	4
	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	4
TG	Trifolio-Geranietea																														
	E1	.	r	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	4
	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	4

Successive number of relevé (Zaporedna številka popisa)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	Fr.	
GU Galio-Urticetea																											
<i>Alliaria petiolata</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
<i>Lamium maculatum</i>	E1	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
<i>Cardamine hirsuta</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
<i>Chelidonium majus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
<i>Erigeron annuus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
MA Molinio-Arrhenatheretea																											
<i>Angelica sylvestris</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	+	.	.	.	.	3 12
<i>Taraxacum</i> sect. <i>Ruderalia</i>	E1	.	+	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	2 8
<i>Caltha palustris</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	4
TR Thlaspietea rotundifoliai																											
<i>Gymnocarpium robertianum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	4
AT Asplenietea trichomanis																											
<i>Asplenium trichomanes</i>	E1	.	.	.	+	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	5 20
<i>Polypodium vulgare</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3 12
<i>Valeriana tripteris</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2 8
<i>Cystopteris fragilis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
<i>Saxifraga petraea</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
<i>Moehringia muscosa</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
<i>Parietaria judaica</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
ML Mosses (Mahovi)																											
<i>Thamnobryum alopecurum</i>	E0	.	.	.	.	.	1	1	1	3	.	.	.	.	.	.	.	.	.	2	.	1	2	+	.	.	9 36
<i>Isoetes alopecurioides</i>	E0	.	.	.	.	.	.	.	.	1	1	.	.	.	.	.	.	.	.	1	.	2	.	2	1	.	7 28
<i>Plagiomnium undulatum</i>	E0	.	.	.	.	1	1	.	+	1	.	.	.	.	.	.	.	.	.	2	.	.	.	.	.	.	6 24
<i>Ctenidium molluscum</i>	E0	.	.	.	.	.	.	.	.	+	1	.	.	.	.	.	.	.	.	.	1	+	.	.	.	.	5 20
<i>Conocephalum conicum</i>	E0	.	.	.	.	1	1	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4 16
<i>Exeritheca crispa</i> (<i>Neckera crispa</i>)	E0	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	2	.	.	1	1	.	4 16
<i>Brachythecium rutabulum</i>	E0	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3 12
<i>Polytrichum formosum</i>	E0	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3 12
<i>Atrichum undulatum</i>	E0	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2 8
<i>Fissidens dubius</i>	E0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2 8
<i>Pseudanomodon attenuatus</i> (<i>Anomodon attenuatus</i>)	E0	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2 8
<i>Fissidens taxifolius</i>	E0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	2 8
<i>Eurhynchium angustirete</i>	E0	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1 4
<i>Thuidium tamariscinum</i>	E0	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1 4
<i>Hypnum cupressiforme</i>	E0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	1 4
<i>Homalothecium lutescens</i>	E0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1 4
<i>Schistidium apocarpum</i>	E0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1 4

Legend - Legend

- L Limestone - apnec
- Ch Chert - roženec
- Deb Debris - grušč
- Fl Flysch - fliš
- Gr Gravel - prod

Successive number of relevés (Zaporedna številka popisa) 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 Pr. Fr.

M Marlstone - laporovec

Ro Rockslide - podorno gradivo

Ss Sandstone - peščenjak

CC Chromic Cambisols - rjava pokarbonatna tla

Co Colluvial-deluvial soil - kolvialno-deluvialna tla

Eu Eutric brown soil - evtrična rjava tla

Re rendzina - rendzina

Li Lithosol - kamnišče

Pr. Presence (number of relevés in which the species is presented) - število popisov, v katerih se pojavlja vrsta

Fr. Frequency in % - frekvenca v %